S/144/60/000/01/007/019
E194/E155

An Asynchronous Motor with Solid Spherical Rotor

spherical rotor motor is carried out in the usual way. There are 7 figures and 11 references, of which 10 are Soviet and 1 is English.

ASSOCIATION: Leningradskiy Krasnoznamennoy voyenno-vozdushnoy akademii imeni A.F. Mozhayskiy
(Leningrad Military Air Academy imeni A.F. Mozhayskiy)

SUBMITTED: July 10, 1959

Card 6/6

LEBEDEV, A.A., doktor tekhn.nauk

Stability of dynamic linear systems with variable coefficients. (MIRA 13:10)
Trudy MAI no.121:44-51 '60.
(Automatic control)

PHASE I BOOK EXPLOITATION SOV/6287

Lebedev, Aleksandr Aleksandrovich, and Lev Semenovich Chernobrovkin.

Dinamika poleta bespilotnykh letatel'nykh apparatov (Flight Dynamics of Pilotless Aircraft). Moskva, Oborongiz, 1962. 548 p. Errata slip inserted. 7000 copies printed.

Ed. (Title page): A. A. Lebedev, Doctor of Technical Sciences, Professor; Reviewers: D. L. Tomashevich, Doctor of Technical Sciences, and N. A. Kheyfets, Doctor of Technical Sciences; Ed. of Publishing House: N. A. Gortsuyeva; Tech. Ed.: V. P. Rozhin; Managing Ed.: S. D. Krasil'nikov, Engineer.

PURPOSE: This textbook is intended for students in higher engineering institutes. It may also be used by technical and engineering personnel working in the field of pilotless aircraft.

COVERAGE: The book describes fundamentals in the theory of the aerodynamics and dynamics of pilotless aircraft operating in the Earth's atmosphere. Equations for the motion of aircraft, approximate

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methods of determining aerodynamic characteristics for aircraft having various aerodynamic design features and for a wide range of Mach numbers, and the dynamic characteristics of aircraft are investigated. References are listed after each chapter.

TABLE OF CONTENTS [Abridged]:

VOLYNKIN, Yu.M.; ARUTYUNOV, G.A.; ANTIPOV, V.V.; ALTUKHOV, G.V.; BAYEVSKIY, R.M.; BELAY, V.Ye.; BUYANOV, P.V.; BRYANOV, I.I.; VASIL'YEV, P.V.; VOLOVICH, V.G.; GAGARIN, Yu.A.; GETIN, A.M.; GORBOV, F.D.; GORSHKOV, A.I.; GUROVSKIY, N.N.; YESHANOV, N.Kh.; YEGOROV, A.D.; KARPOV, Ye.A.; KOVALEV, V.V.; KOLOSOV, T.A.; KORESHKOV, A.A.; KAS'YAN, I.I.; KOTOVSKAYA, A.R.; KALIBERDIN, G.V.; KOPANEV, V.I.; KUZ'MINOV, A.P.; KAKURIN, L.I ; KUDROVA, R.V.; LEBEDEV, V.I.; LEBEDEV, A.A.; LOBZIN, P.P.; MAKSIMOV, D.G.; MYASNIKOV, V.I.; MALYSHKIN, Ye.G.; NEUMYVAKIN, I.P.; ONISHCHENKO, V.F.; POPOV, I.G.; PORUCHIKOV, Ye.P.; SIL'VESTROV, M.M.; SERYAPIN, A.D.; SAKSONOV, P.P.; TERENT'YEV, V.G.; USHAKOV, A.S.; UDALOV, Yu.F.; FOMIN, V.S.; FOMIN, A.G.; KHLEBNIKOV, G.F.; YUGANOV, Ye.M.; YAZDOVSKIY, V.I.; KRICHAGIN, V.I.; AKULINICHEV, I.T.; SAVINICH, F.K.; STEPURA, S.F.; VOSKRESENSKIY, O.G.; GAZENKO, O.G., **SISAKYAN, N.M.**, akademik, red.

[Second group space flight and some results of the Soviet astronauts' flights on "Vostok" ships; scientific results of medical and biological research conducted during the second group space flight] Vtoroi gruppovoi kosmicheskii polet i nekotorye itogi poletov sovetskikh kosmonavtov na korabliakh "Vostok"; nauchnye rezul'taty medikobiologicheskikh issledovanii, provedennykh vo vremia vtorogo gruppovogo kosmicheskogo poleta. Moskva, Nauka, 1965. 277 p. (MIRA 18:6)

L 25797-66 EEC(k)-2/EWT(d)/FBD/EWP(1)/FSS-2 IJP(c) BC

ACC NR: AM6008539 Monograph UR/ 103 99 B+7

Lebedev, Aleksandr Aleksandrovich; Karabanov, Vladimir Aleksandrovich

Dynamics of control systems of pilotless aircraft (Dinamika sistem upravleniya bespilotnymi letatel'nymi apparatami) Moscow, Izd-vo "Mashinostroyeniye," 1965. 528 p. illus., biblio. Errata slip inserted. 6000 copies printed. Textbook for students at aviation schools and faculties.

TOPIC TAGS: flight control system, stabilization system, aircraft flight dynamics, missile guidance system, homing guidance, pilotless aircraft, guidance system, aircraft motion, stabilization system component, gyroscope, ballistic missile, missile dynamics, missile velocity control, guidance error, remote guidance system

PURPOSE AND COVERAGE: This book is the second part of the textbook "Flight Dynamics of Pilotless Aircraft," written by A. A. Lebedev and L. S. Chernobrovkin; it is intended for students in advanced courses in institutions of higher technical education and may be used by scientific workers and engineers in related fields. Flight dynamics as related to control processes is reviewed. Necessary information on the dynamics of components found in a flight-control system is given, and principles for the synthesis of stabilization and guidance systems are presented. Methods for calculating these

UDC: 623.746-519:62-50.001.11(07)

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systems are examined, and stabilization and guidance processes are investigated with particular respect to the analysis of guidance accuracy. The authors express appreciation to reviewers L. T. Kuzin, I. Ye. Mitrofanov, E. F. Fatkhullin, and engineer L. I. Kir'yanov for their assistance in preparing the manuscript for print.

TABLE OF CONTENTS [abridged]:

L 25797-66
ACC NR: AM6008539 O

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L 25797-66

ACC NR: AM6008539 O

SUB CODE: 09, 16, 17/ SUBM DATE: 07Oct65/ ORIG REF: 146/ OTH REF: 18

Card 6/6 CC

L 24466-66 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(l)
ACC NR: AT6008651 IJP(c) (N) JD/HW/JG/GS/JXT(CZ) SOURCE CODE: UR/0000/65/000/000/0077/0083

AUTHOR: Lebedev, A. A. (Kiev)

ORG: none

TITLE: Experimental investigation of the long duration strength of chromium-nickel steel under biaxial tensile load

SOURCE: Vsesoyuznoye soveshchaniye po voprosam staticheskoy i dinamicheskoy prochnosti materialov i konstruktsionnykh elementov pri vysokikh i nizkikh temperaturakh, 3d. Termoprochnost' materialov i konstruktsionnykh elementov (Thermal strength of materials and construction elements); materialy soveshchaniya, Kiev, Naukova dumka, 1965, 77-83

TOPIC TAGS: metallurgic testing machine, tensile stress, nickel steel, chromium steel, pressure effect/ DST-15 metallurgic testing machine

ABSTRACT: A test machine DST-15, designed for applying a tensile load and internal pressure to a hollow cylindrical specimen (plane stress), and developed at the Material Introduction Institute of the AN UkrSSR (Institut problem materialovedeniya AN UkrSSR), is described in detail. It was used to test the long-duration strength of chromium-nickel steel 1Kh18N9T under biaxial stress. Hollow specimens (test section: 31.5 mm in outside diameter, 30.0 inside diameter, 90 mm long) were pressurized with air, and a tensile load was applied as follows (at 800 C): pure

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ACC NR: AT6008651

O

tension--5 specimens; k = σ_θ / σ_z = 0.3--4 specimens; k = 0.5--6; k = 1--5; k = 2--3 specimens. The experimental results were compared with existing theoretical criteria. It was found that the generalized criterion

$$\eta_\Sigma = \chi(\sigma_1 - \sigma_3) + \sigma_1.$$

with χ = 0.55 (see A. A. Lebedev, Obobshchennyy kriteriy dlitel'noy prochnosti; same journal as present paper) best described the long-duration strength of the steel. Orig. art. has: 1 table, 1 formula, and 5 figures.

SUB CODE: 11/ SUBM DATE: 19Aug65/ ORIG REF: 006

Card 2/2 dda

LEBEDEV, A.A.; SHREYBER, M.I.

Organization of the work of the sanitation and epidemiological station. Gig.i san. no.6:38-45 Je '53. (MLRA 6:6)

1. Orekhovo-Zuyevskaya gorodskaya sanitarno-epidemiologicheskaya stantsiya. (Public health)

SHREYBER, M.I.; LEBEDEV, A.A., glavnyy vrach.

Maintenance and method of current supervision of sanitation. Zhur.mikrobiol. epid.i immun. no.9:56-61 S '53. (MLRA 6:11)

1. Orekhovo-Zuyevskaya gorodskaya sanitarno-epidemiologicheskaya stantsiya. (Sanitation)

LEBEDEV, A.A.; SHREIBER, M.I.

Work organization at the public health and epidemiological station. (Transl. from Gig. & San., 1953. No.6, pp.38-45.) Nepegeszsegugy 35 4:93-97 Apr.54.

(PUBLIC HEALTH,
in Russia, work organiz. at pub. health & epidemiol. stations)

LEBEDEV, A.A.

Pharmacology of Schisandra. Mat. k izuch. zhen'-shenia i lim. no.2:178-188 '55. (MLRA 9:10)

(SCHISANDRA)

UNANOV, S.S.; VASIL'YEV, L.V.; LEBEDEV, A.A.

Epidemiological effectiveness of anti-influenza monovalent vaccine A_2. Zhur.mikrobiol.epid. i immun. 30 no.5:31-37 My '59. (MIRA 12:9)

1. Iz TSentral'nogo instituta usovershenstvovaniya vrachey i Sanitarno-epidemiologicheskoy stantsii Orekhovo-Zuyeva.
(INFLUENZA, prev. & control,
vacc. in Russia (Rus))

L 28829-66
ACC NR: AP6018665 SOURCE CODE: UR/0239/65/051/012/1495/1500

AUTHOR: Lebedev, A. A.

ORG: Medical Institute, Ivanovo (Ivanovskiy meditsinskiy institut)

TITLE: Change in renal function in the presence of experimental convulsive seizures

SOURCE: Fiziologicheskiy zhurnal, v. 51, no. 12, 1965, 1495-1500

TOPIC TAGS: dog, colorimetry, flame photometry, enzyme, animal physiology

ABSTRACT: The investigation was performed on six dogs with the ureters led out by the Orbeli method onto the anterior abdominal wall. Convulsive fits were produced by administering an ether-camphor mixture (1 g of Camphorae frifae dissolved in 3.5 cc of persic oil, with 0.6 cc of ether added) in an intravenous dose of 1.5-2 cc. The experiments were performed against a background of water diuresis produced by loading the stomach with tap water (50 mg/kg). Within 30-45 minutes after the water loading, a solution of 2.5% inulin and 0.6% phenol red was injected into the femoral vein at the rate of 3-4 cc per minute. In the experiments where glucose reabsorption was investigated, 30% glucose was added to this solution. The inulin in the blood plasma and urine was determined by the resorption method; the phenol red, by the colorimetric method; the sugar of the blood and urine, by the Hagedorn-Jensen method; the sodium in the plasma and urine, by flame photometry. Ten

Card 1/2 UDC: 612.460

L 28829-66

ACC NR: AP6018665 O

to fifteen seconds following the intravenous administration of the ether-camphor mixture, the dog developed general motor disorders and copious salivation, followed by convulsions (in three stages: tonic, clonic, and the state of treadmill-type running). It was found that the convulsive fit produces distinct and fairly prolonged changes in the basic renal processes and leads to a lengthy (as much as 1-1.5 hr) delay in the elimination of water. The principal factor in the oliguria is canalicular reabsorption of water, which increases signally and for a long time following the convulsions. A decrease in filtration may also be a factor in the rise of oliguria only within 5-15 minutes after the convulsions. It may be assumed that the decrease in the active canalicular excretion of phenol red and the change in the reabsorption of glucose following the convulsions are mostly attributable to hemodynamic disturbances in the kidneys, although the possibility of changes in the activity of the enzyme systems handling the transport of these substances should not be precluded. Experimental convulsive fits lead to a decrease in the elimination of sodium ions, which is due not only to the decrease in the filtration charge of sodium owing to the decrease in filtration but also to the intensification of the canalicular reabsorption of this ion. Orig. art. has: 3 figures, 1 table. [JPRS]

SUB CODE: 06, 07 / SUBM DATE: 08Jul64 / ORIG REF: 006 / OTH REF: 007

Card 2/2 CC

LEBEDEV, A.A., inzh. polkovnik; KOSAREV, V.V., kapitan 2-go ranga; GAZIYEV, A.A., inzh.-kapitan 3-go ranga.

How to facilitate the working out of training programs. Mor. sbor. 49 no. 12:46-48 D '65 (MIRA 19:1)

LEBEDEV, A.A.

Fifth Anniversary of the Leningrad Cybernetics Section. Probl. Kib. no.9:347 '63. (MIRA 17:10)

ILUPIN, I.P.; LEBEDEV, A.A.

Subvolcanic facies of kimberlites. Sov. geol. 6 no.9: 51-61 S '63. (MIRA 17:10)

1. Amakinskaya ekspeditsiya.

L 14356-65 EWT(m)/EWP(w)/EWA(d)/EWP(t)/EWP(b) SSD/AFWL/AFETR JD
ACCESSION NR: AR4045218 S/0277/64/000/007/0033/0033

SOURCE: Ref. zh. Mashinostr. mat., konstr. i raschet detal. mash. Otd. vyp., Abs. 7.48.230

AUTHOR: Lebedev, A. A.

TITLE: The problem of experimental investigation of creep and resistance to elongation under a complex stress

CITED SOURCE: Sb. Polzuchest' i dlitel'n. prochnost'. Novosibirsk, Sib. otd. AN SSSR, 1963, 148-151

TOPIC TAGS: creep, elongation resistance, stress, torque, strength, deformation

TRANSLATION: The Institute for Metalloceramics and Special Alloys of the AN Ukrainian SSR has developed a small apparatus which makes it possible to test materials for short and long term strength under a planar stress at high temperature with any given system of loading the sample by axial stress or torque. The sample is connected by a coupling bar to the clamps of the system, which produces the axial

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L 14356-65
ACCESSION NR: AR4045218

force or torque. A working medium is introduced under pressure into an internal cavity in the sample. The heating device is a metalloceramic rod placed in the internal cavity of the sample. Axial, radial, and angular deformations of the sample are measured with a cathetometer on the basis of relative movements of the tabs of two detachable clamps which are attached with springs along the gage length of the sample. Deformation measurements can also be made with high temperature pickups which may be conviently attached to the outer surface of the sample. A special assembly designed for 500 kg/cm2 has been developed for the introduction of a gaseous working medium into the sample under pressure.

SUB CODE: MM, ME ENCL: 00

Card 2/2

PORAY-KOSHITS, Ye.A., otv. red.; YEVSTROP'YEV, K.S., red.; KONDRAT'YEV, Yu.N., red.; LEBEDEV, A.A., red.; MAZURIN, O.V., red.; MOLCHANOV, V.S., red.; PETROVSKIY, G.T., red.; POZUBENKOV, A.F., red.; TOROPOV, N.A., red.; CHEBOTAREVA, T.Ye., red.; YAKHKIND, A.K., red.

[Vitreous state; transactions] Stekloobraznoe sostoianie; trudy. Moskva, Nauka, 1965. 439 p. (MIRA 18:7)

1. Vsesoyuznoye soveshchaniye po stekloobraznomu sostoyaniyu. 4th, Leningrad, 1964.

GORCHAKOVSKAYA, N.N.; LEBEDEV, A.D.; BRIKMAN, L.I.; KOLESNIKOV, A.A.

Extermination of ticks Ixodes persulcatus P.Sch. in natural nidi of tick-borne incephalitis; preliminary report. Med.paraz.i paraz.bol. no.4:331-337 Jl-Ag '53. (MLRA 6:9)
(Ticks)

IOFF, I.G.; GERSHKOVICH, N.L.; ZAGNIBORODOVA, Ye.N.; LABUNETS, N.F.; LEBEDEV, A.D.; MIKULIN, M.A.; SKALON, O.I.; TIFLOV, V.Ye.; SHVARTS, Ye.A.; YURKINA, V.I.; YAGUBYANTS, I.M.

New species of fleas (Suctoria-Aphaniptera); third report. Med.paraz.i paraz.bol. no.5:460-465 S-O '53. (MLRA 6:12)
(Fleas)

LEBEDEV, A.D.

USSR/Medicine - Hemorrhagic Fever, Epidemiology FD-2593

Card 1/1 Pub. 148 - 4/25

Author : Avakyan, A. A. and Lebedev, A. D.

Title : The nature of natural reservoirs of hemorrhagic fevers

Periodical : Zhur. mikro. epid. i immun. 4, 20-26, Apr 1955

Abstract : Hemorrhagic fevers occurring in the USSR are grouped into two types: transmissive -- tick-borne, and zoogenous -- transmitted by direct or indirect contact with rodents. Crimean, Omsk, and Uzbekistan hemorrhagic fevers fall into the former category and Winter hemorrhagic fever and hemorrhagic nephroso-nephritis into the latter. The incidence, seasonality, distribution, and etiology of these diseases in the USSR are discussed. The vectors and hosts are specified. The article is illustrated by a chart showing the seasonal incidence of the various types. Fifteen Soviet references are cited.

Institution : Institute of Virology, Academy of Medical Sciences USSR (Director - M. P. Chumakov)

Submitted : March 20, 1954

AVAKYAN,A.A.; LEBEDEV,A.D.; RAVDONIKAS,O.V.; CHUMAKOV,M.P.

Role of mammals in the formation of a natural reservoir of the Omsk hemorrhagic fever. Zool.zhur. 34 no.3:605-608 My-Je '55. (MLRA 8:8)

1. Institut virusologii im. D.I.Ivanovskogo Akademii meditsinskikh nauk SSSR.

(Hemorrhagic fever)

LEBEDEV, A. D.

"The Epidemiology of Hemorrhagic Fever With a Nephritic Syndrome," a report discussed at one of six meetings of the Virological Section, Moscow Dept. All-Union Society of Microbiologists, Epidemiologists, and Infectionists imeni I. I. Mechnikov in 1955. Voprosy Virusologii, 1, No 2, 1956

Sum. 1003, 20 Jul 56

LEBEDEV, A.D.

Cause for the absence of communicable epidemics of tularemia in some areas of Western Siberia. Med.paraz. i paraz.bol.supplement to no.1: 54 '57. (MIRA 11:1)

1. Iz Instituta virusologii imeni Ivanovskogo AMN SSSR.
(SIBERIA, WESTERN--TULAREMIA)

USSR / Virology--Viruses of Man and Animals; Viruses of E
Transmission Infections

Abs Jour: Ref Zhur-Biologiya, No 21, 1958, 49878

Author : Lebedev, A. D.

Inst : Not given

Title : Results of an Expeditionary Study of Hemorrhagic Nephrosonephritis (Epidemic Hemorrhagic Fever) in Yaroslavskaya Oblast

Orig Pub: Zh. mikrobiol., epidemiol. i immunobiol., 1957, No 11, 129-137

Abstract: The foci of the disease were studied in 1949-1957. An increase in morbidity, which was preceded by migration of mouselike rodents and shrews in the homes of man, was noted in November-December.

Card 1/3

USSR / Virology--Viruses of Man and Animals; Viruses of E
Transmission Infections

Abs Jour: Ref Zhur-Biologiya, No 21, 1958, 94878

For the most part, only sporadic cases were registered in the remaining months. Of 9844 homes examined, 234 seemingly carried hemorrhagic nephrosonephritis and 180 were suspected of it. During a serological examination with the use of a hemolytic reaction of chicken erythrocytes, a positive result was obtained in the epidemic location in 60 percent of the cases, and in the locality bordering it in 10 percent. Cases of the illness were observed only in places with a sharp predominance of clayey soils. In the diseased locality, there were noted 11 species of mouselike redents and 5 species of the insectivorous type. The predominant species, whose increase in numbers was observed in the epidemic years, were: field

Card 2/4

USSR / Virology--Viruses of Man and Animals; Viruses of E
Transmission Infections

Abs Jour: Ref Zhur-Biologiya, No 21, 1958, 94878

mouse, grey mouse, Microtus minutus Pall. and shrew Sorex. The author expresses the hypothesis that the infection of man is accomplished through injury to the skin or mucosae during contact with objects contaminated by secretions of rodent (and insectivor) virus carriers. -- D. K. L'vov

Card 3/3

LEBEDEV, A.D.

Ecology of the tick Dermacentor pictus Herm. according to the observations in the forest steppe of Western Siberia [with summary in English]. Zool. zhur. 36 no.7:1016-1025 Jl '57.
(MLRA 10:9)

1. Institut virusologii imeni D.I. Ivanovskogo.
(Omsk Province--Ticks as carriers of disease)
(Parasites--Rodentia)

SHNAYDMAN, Lev Osipovich; SAVINOV, B.G., doktor tekhn.nauk, retsenzent; LEBEDEV, A.D., inzh., retsenzent; BELIKOVA, L.S., red.; SOKOLOVA, L.A., tekhn.red.

[Production of vitamins] Proizvodstvo vitaminov. Moskva, Pishchepromizdat, 1958. 413 p. (MIRA 12:2)
(Vitamins)

LEBEDEV, A.D.

Pathways of human infections with hemorrhagic nephroso-nephritis in Yaroslav Province. Vop.virus 3 no.4:210-212 Jl-Ag '58 (MIRA 11:9)

1. Kafedra obshchey biologii I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.
(HEMORRHAGIC FEVER, epidemiology
in Russia (Rus))

TSILINSKIY, Ya.Ya., LEBEDEV, A.D.

Method for setting up a precipitation reaction on gel. Zhur. mikrobiol.epid. i immun. 29 no.5:25-32 My '58 (MIRA 11:6)

1. Iz kafedry obshchey biologii I Moskovskogo meditsinskogo instituta imeni Sechenova.
(IMMUNOLOGY,
precipitation reaction on gel (Rus))

LEBEDEV, A.D.; KOROBKO, I.A.; THUSOVA, N.D.

Development of the process of enolization of diacetone-2-keto-l-gulonic acid with a reduced quantity of chloroform and dichlorethane. Trudy VNIVI 6:54-55 '59. (MIRA 13:7)

1. Yoshkra-Olinskiy vitaminnyy zavod.
(GULONIC ACID)

ACC NR: AP7004638 SOURCE CODE: UR/0288/66/000/003/0094/0097

AUTHOR: Lebedev, A. D.

ORG: Institute of Electromechanics, Leningrad, (Institut elektromekhaniki)

TITLE: Cleavage of electron temperature in dense Argon plasma

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk, no. 3, 1966, 94-97

TOPIC TAGS: plasma temperature, plasma electron temperature, plasma research, argon plasma, ~~physics~~ electron temperature, electric field, argon plasma

ABSTRACT: The author investigates whether the phenomenon characterized by an increase of electron temperature over and above that of the gas subject to electric field could be enhanced. Argon plasma at a pressure of 0.5--10 atm and temperature of 2000--8000 K is analyzed. The electron number balance equation and energy equation for the electron gas are reduced to the stationary case, and electron energy losses in elastic collisions and electron conductivity are calculated. The electron temperature Te and concentration for fixed initial Argon atom concentration provide electron conductivity and elastic losses. Current density as a function of the electric field is established. The results are shown in Fig. 1 giving electric field intensity as a function of current density at different gas pressures and constant temperature (2000 K). Broken lines are electron isotherms (Te is expressed in

Card 1/3 UDC: 539.932'951.2:546.293

ACC NR: AP7004638

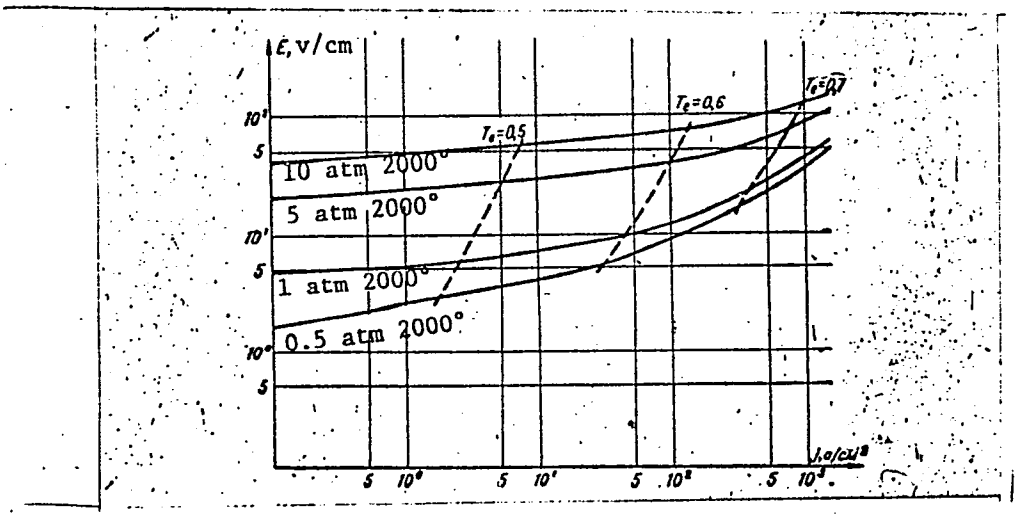

Fig. 1. Electron and gas plasma temperature cleavage.

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ACC NR: AP7004638

electron-volts). It can be seen that the temperature cleavage increases with increasing input power but it nevertheless remains small if energy is not removed from the arc by artificial means. Orig. art. has: 7 formulas and 2 figures.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 001

Card 3/3

LEBEDEV, A.D.; MOSYAKOVA, T.F.; TRUSOVA, N.D.; PLASTININ, N.A.

Compound use of the fruit of the dog rose. Trudy VNIVI 6:115-116 '59. (MIRA 13:7)

1. Yoshkar-Olinskiy vitaminnyy zavod.
(ROSE)

LEBEDEV, A.D.

22563. LEBEDEV, A. D. Tekhnicheskaya laboratoriya lubyanykh kul'tur. Sbornik trudov pushkinsk laboratorii vsesoyuz. In-ta rasteniyevodstva. L. 1949, S. 63-65.

SO: LETOPIS' No. 30, 1949

LEBEDEV, Aleksey Dmitriyevich, kand.khim.nauk; PAYBERDIN, Mikhail Vasil'yevich, dotsent; DANILOVA, V.M., red.; DANILOVA, Ye.M., tekhred.

[Vitamins and their natural resources] Vitaminy i ikh prirodnye resursy. Ioshkar-Ola, Mariiskoe knizhnoe izd-vo, 1959. 104 p. (MIRA 13:6)

1. Povolzhskiy lesotekhnicheskiy institut im. M.Gor'kogo (for Payberdin).

(VITAMINS) (MARI A.S.S.R.--ROSES)

NOVIKOV, Vyacheslav Aleksandrovich. Prinimali uchastiye: LEBEDEV, Alekseу Dmitriyevich, kand.khim.nauk; PEYSAKHOVICH, F.Sh.; KORMANOVSKIY, A.P.; RYZHINSKIY, B.I.; GARBAZHIY, G.I.. DANILOVA, V.M., red.; DANILOVA, Ye.M., tekhred.

[Suggestions of efficiency promoters of the Mari A.S.S.R.] Predlozheniia ratsionalizatorov Mariiskoi ASSR. Ioshkar-Ola, Mariiskoe knizhnoe izd-vo, 1959. 52 p. (MIRA 13:5)
(Mari A.S.S.R.--Technological innovations)

LEBEDEV, A.F.

1. KULESHOV, V. N., LEBEDEV, A. F.

2. USSR (600)

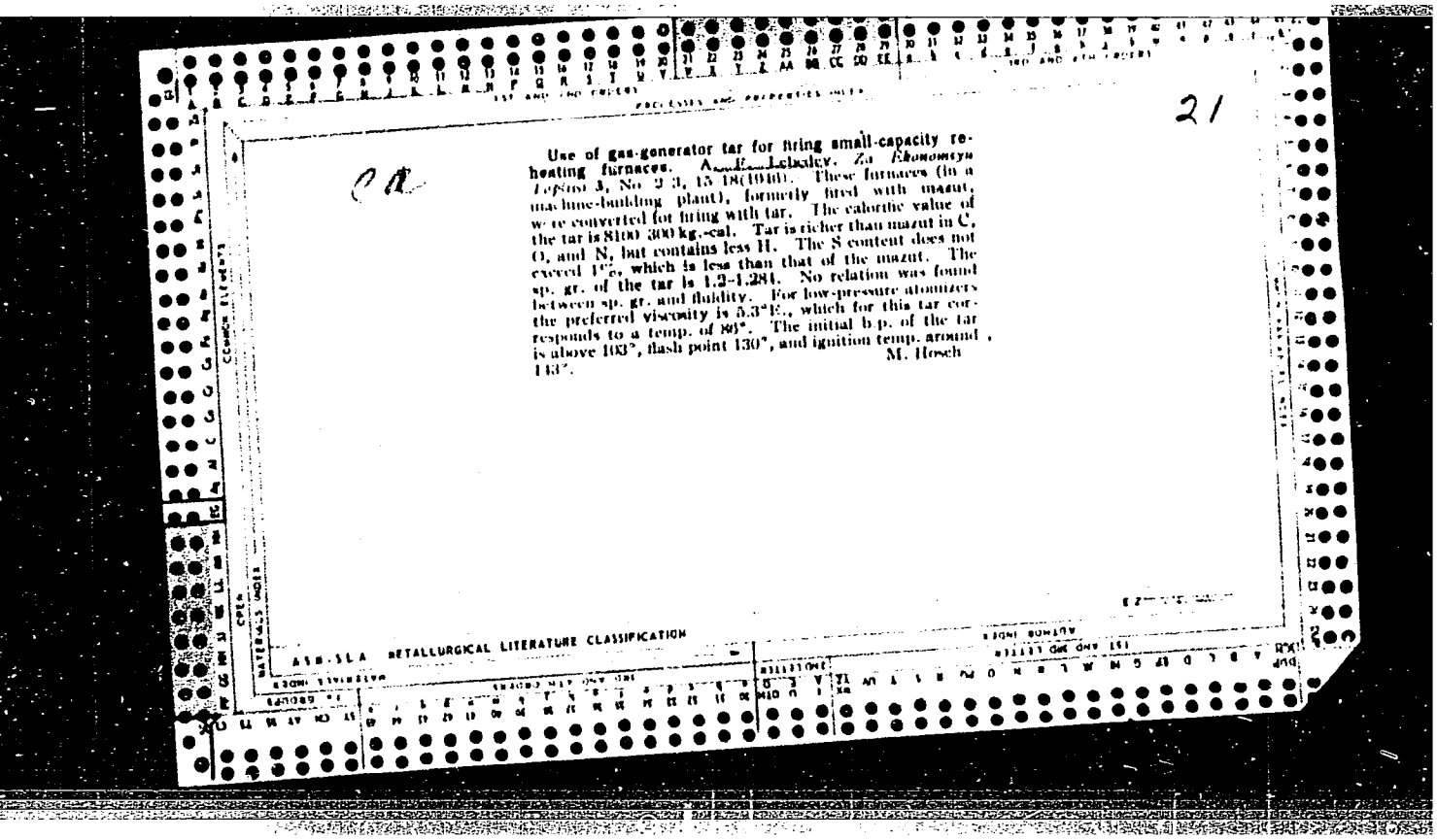
4. Medicine, Rural

7. New advances in rural public health; conference of progressive rural physicians in Vinogradov. V. N. Kuleshov, A. F. Lebedev. Sov. zdrav. 12, No. 1, 1953.

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

LEBEDEV, A.F. (Valuyki)

Stereometrical box. Mat.v shkole no.3:55-56 My-Je '55. (MLRA 8:7)
(Mensuration)



Use of gas-generator tar for firing small-capacity reheating furnaces. A. F. Lebedev. *Za Khomomyu Teplom* 3, No. 2-3, 15-18(1940). These furnaces (in a machine-building plant), formerly fired with mazut, were converted for firing with tar. The calorific value of the tar is 8100-300 kg.-cal. Tar is richer than mazut in C, O, and N, but contains less H. The S content does not exceed 1%, which is less than that of the mazut. The sp. gr. of the tar is 1.2-1.284. No relation was found between sp. gr. and fluidity. For low-pressure atomizers the preferred viscosity is 5.3°E., which for this tar corresponds to a temp. of 80°. The initial b.p. of the tar is above 103°, flash point 130°, and ignition temp. around 143°.

M. Hosch

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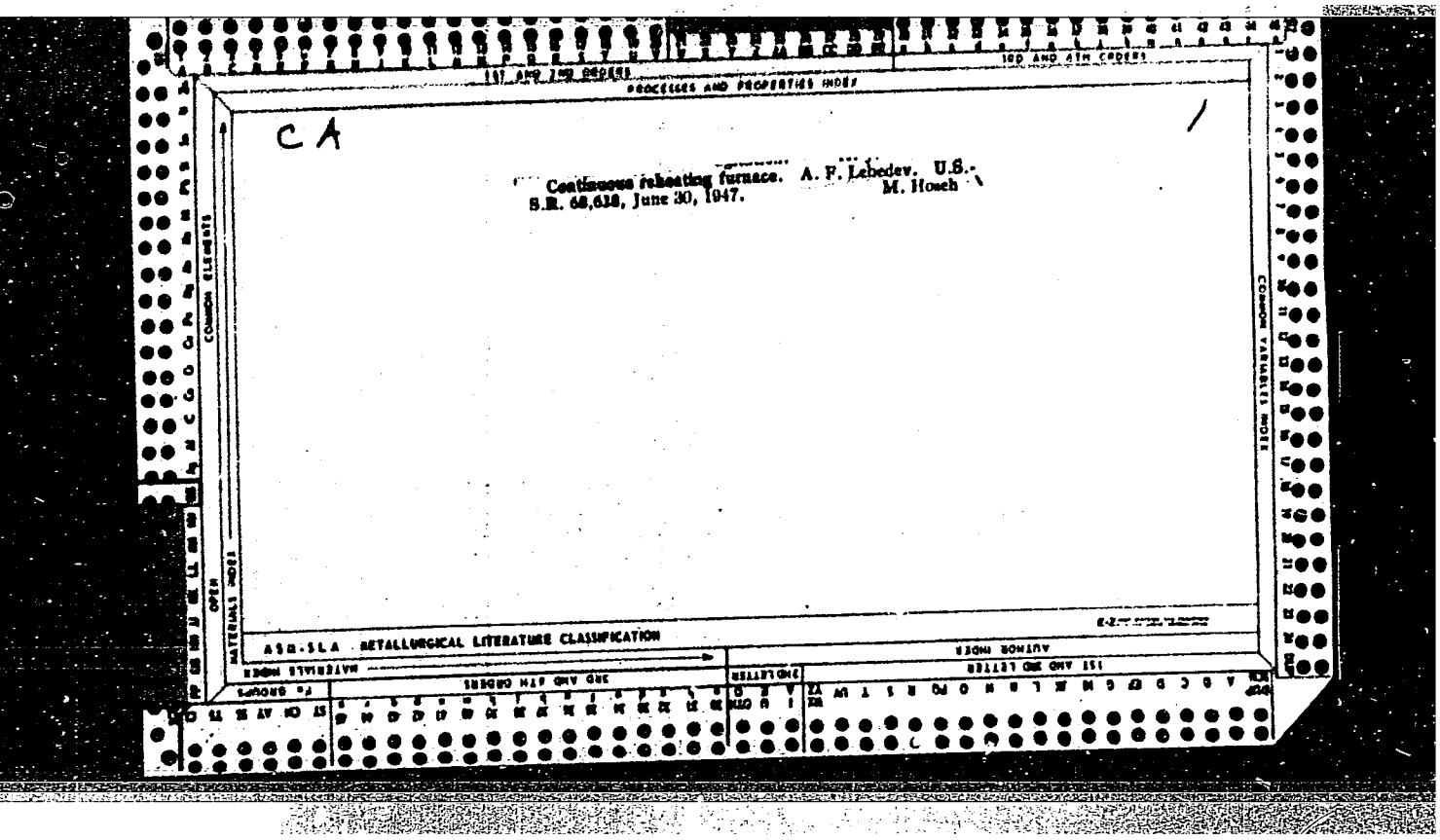
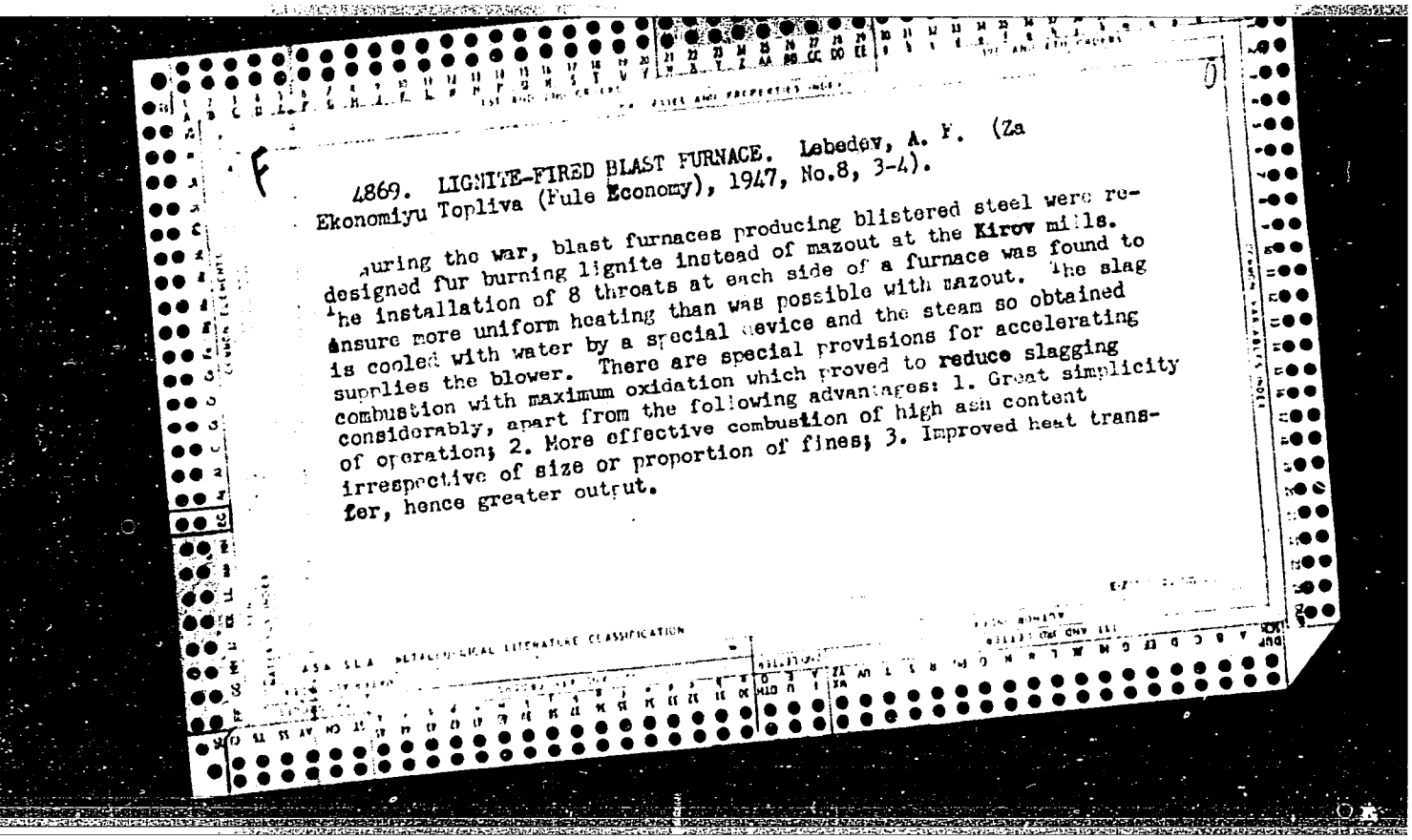
CA

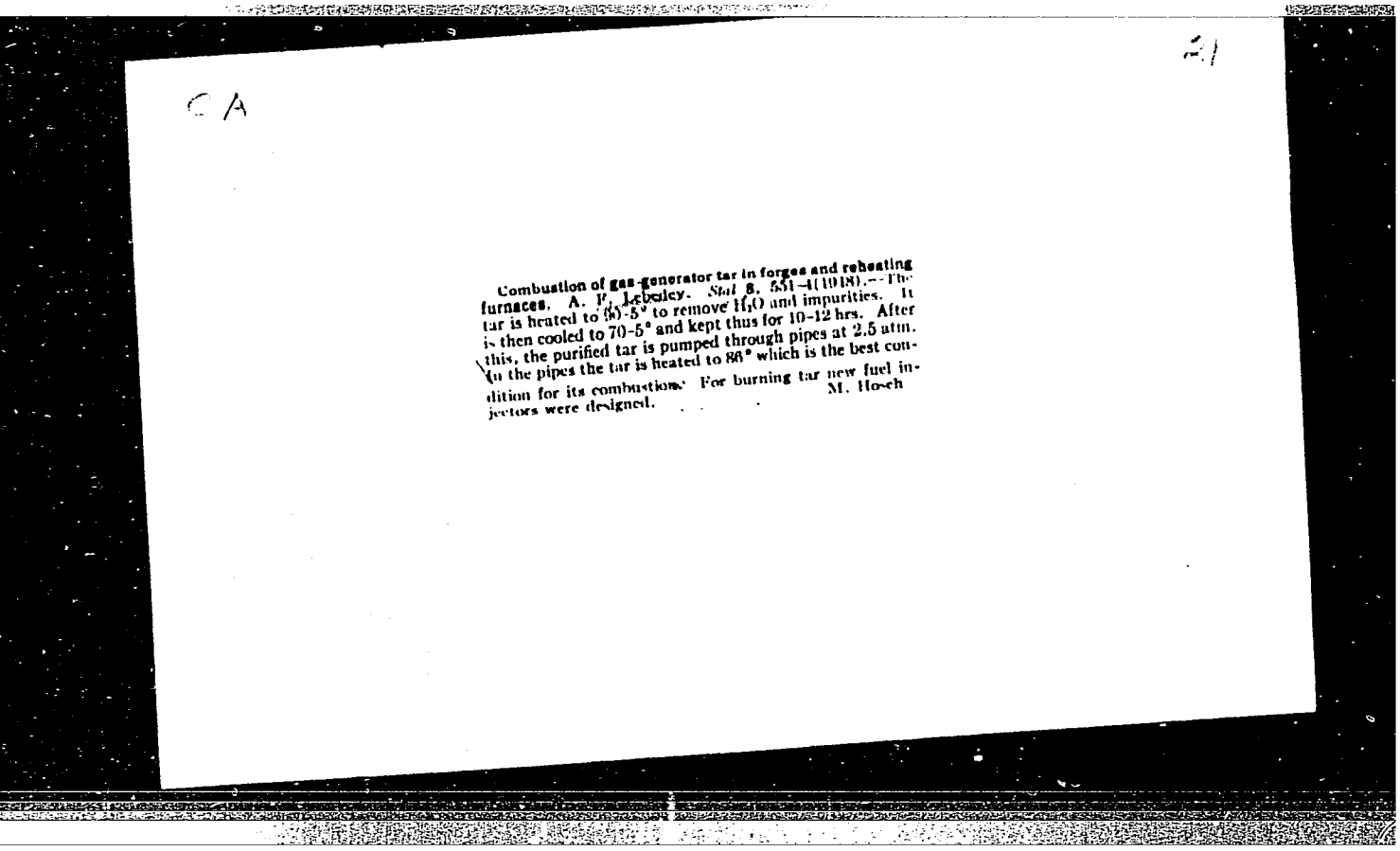
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION





4869. LIGNITE-FIRED BLAST FURNACE. Lebedev, A. F. (Za Ekonomiyu Topliva (Fule Economy), 1947, No.8, 3-4).

During the war, blast furnaces producing blistered steel were redesigned for burning lignite instead of mazout at the Kirov mills. The installation of 8 throats at each side of a furnace was found to ensure more uniform heating than was possible with mazout. The slag is cooled with water by a special device and the steam so obtained supplies the blower. There are special provisions for accelerating combustion with maximum oxidation which proved to reduce slagging considerably, apart from the following advantages: 1. Great simplicity of operation; 2. More effective combustion of high ash content irrespective of size or proportion of fines; 3. Improved heat transfer, hence greater output.



CA

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Combustion of gas-generator tar in forges and reheating furnaces. A. P. Lebedev. *Stal* 8, 551–4(1938).—The tar is heated to 90–5° to remove H_2O and impurities. It is then cooled to 70–5° and kept thus for 10–12 hrs. After this, the purified tar is pumped through pipes at 2.5 atm. In the pipes the tar is heated to 86° which is the best condition for its combustion. For burning tar new fuel injectors were designed. M. Hoseh

SOV/137-57-10-19709

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 178 (USSR)

AUTHOR: Lebedev, A.F.

TITLE: A New Design for a Die for the Hardening of a Bevel Gear for the Steering Clutch of the S-80 Tractor (Novaya konstruktsiya shtampa dlya zakalki konicheskoy shesterni vala bortovykh friktsionov traktora S-80)

PERIODICAL: Tekhnol. transp. mashinostroyeniya, 1957, Nr 2, pp 65-67

ABSTRACT: The dies (D) in use to harden bevel gears of Nr 20KhNZA steel have not completely eliminated warping of these parts, and therefore the Kirov Plant in Chelyabinsk has developed a D of new design for the oil hardening of thin-flanged gears which are particularly subject to warping. The D consists of 7 parts, the details of which are of Nr 12Kh2N4A steel. It provides uniform pressure on the gear being hardened and good circulation of the cooling oil. The gear is pressed against the D by compressed air at both faces. The design and purpose of the D parts are described in detail. The D has eliminated spoilage

Card 1/2

A New Design for a Die for the Hardening of a Bevel Gear (cont.)

completely and has made it possible to repair gears that had been rejected because of warpage.

B.Z.

Card 2/2

LEBEDEV, A.F.

137-58-4-7648

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 183 (USSR)

AUTHOR: Lebedev, A.F.

TITLE: Comprehensive Mechanization of a Solid-carburizer Case-hardening Shop (Kompleksnaya mekhanizatsiya uchastka tsementatsii tverdym karbyurizatorom)

PERIODICAL: Tekhnol. transp. mashinostroyeniya, 1957, Nr 7, pp 24-32

ABSTRACT: Comprehensive mechanization of the carburizing shop at the heat-treatment department of the Kirov Works at Chelyabinsk has been introduced. It has made it possible to eliminate, to a considerable degree, such harmful phenomena as radiational heat losses and liberation of dust and gases, which are usually typical of cementation processes performed with solid carburizers. The charging of the carburizing boxes (CB) is done by a roller carriage having a double-hinged rotating boom and a manipulator. The carriage motors are powered via flexible leads carried from suspensions of original design. A special stand has been provided for the pickup of specimens. Pushers have been installed to move the CB along the cooling rollers. Artificial cooling of the CB by a stream of air from a blower has been provided, which reduces the cooling

Card 1/2

Comprehensive Mechanization of a Solid-carburizer Case-hardening Shop

time by 3-4 hours and improves the quality of the case hardening. Mechanical conveying of the carburizer has been replaced by pneumatic transport. Direct-acting pressure regulators have been installed on the feed lines to control the temperature conditions of the mazut-burning carburizing furnaces. The capacity of the CB has been increased (by increasing their height by 140 mm), and this has resulted in a 50 percent increase in furnace output.

S. P.

1. Metals--Hardening--Equipment 2. Metals--Hardening--Processes

25(1) PHASE I BOOK EXPLOITATION SOV/2283

Lebedev, Afanasiy Fedorovich

Kompleksnaya mekhanizatsiya termicheskoy obrabotiki detaley (Complete Mechanization of the Heat Treatment of Machine Parts) Moscow, Mashgiz, 1958. 46 p. (Series: Obmen tekhnicheskim opytom) 3,000 copies printed.

Ed.: K.N. Sokolov, Candiate of Technical Sciences; Tech. Ed.: N.A. Dugina; Exec. Ed. (Ural-Siberian Division, Mashgiz): G.A. Sarafannikova.

PURPOSE: This booklet is intended for engineers and technicians in the field of machine design and construction.

COVERAGE: The booklet summarizes the experience of the Chelyabinskiy traktornyy zavod (Chelyabinsk Tractor Plant) in the heat treatment of machine parts. A description is given of continuous lines for heat treatment and devices for reduction of rejected parts and labor-consuming auxiliary operation. No per-

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sonalities are mentioned. There are 3 references, all Soviet.

TABLE OF CONTENTS:

Complete Mechanization (Cont.) SOV/2283

AVAILABLE: Library of Congress

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GO/ec
10-7-59

SOV/123-59-16-64536

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 16, p 126 (USSR)

AUTHOR: Lebedev, A.F.

TITLE: Complex Mechanization of the Technological Process of Cementation With a Solid Carburizing Agent

PERIODICAL: Tekhn.-ekon. byul. Sovn. nar. kh-va Chelyab. ekon. adm. r-na, 1958, Nr 3, 34 - 40

ABSTRACT: A lay-out scheme of the equipment and transportation means in a cementation section is given. The operations of conveying the packing cases to the cementation furnace and loading them into the furnace, and selecting samples are mechanized, as well as the cooling roller-conveyor. An artificial cooling of the cementation cases on the roller-conveyer by air fans, which accelerated the cooling process by 3-4 hours and improved the quality of the cemented layer, was introduced. Also the removal of the used up carburizing agent from the unpacking stand was mechanized. In order to avoid dust formation when packing the parts into the cases during the mixing of the worked up carburizing agent with the fresh one, the mixture is moistened. Mazut pressure regu-

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SOV/123-59-16-64536

Complex Mechanization of the Technological Process of Cementation With a Solid Carburizing Agent

lators are installed on the furnaces. The control of the section is centralized. Total savings amount to 400,000 rubles per annum. 5 figures.

Sh.L.Ye.

Card 2/2

AUTHOR: Lebedev, A.F., Engineer

117-58-5-5/24

TITLE: The Latest in the Technology of Thermal Treatment (Novoye v tekhnologii termoobrabotki)

PERIODICAL: Mashinostroitel', 1958, Nr 5, pp 13-16 (USSR)

ABSTRACT: The complex mechanization of the cementation process in a hard carburizer. Cementation in a hard carburizer is done in black oil ovens. The parts are inclosed in heat resistant boxes, 600x560x415, which used to be manipulated by hand, involving great risks, besides being exceptionally hard work. The mechanization of this work provides for a complex installation as is shown in figure 1. It consists of a trolley with a rotary boom and a manipulator for overturning the boxes on to the roll tables leading into the oven. The equipment of the trolley, which moves on rails, is electrically driven. After processing, the hot boxes are taken up by an electric vehicle and moved over to the cooling roll table, where they are unloaded; the vehicle also selects sample boxes for testing purposes. The handling of the carburizer has been likewise mechanized. A pneumatic device serves to remove the used car-

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burizer from the boxes when they are being unpacked, directing the used carburizer into a bin, where it is reprocessed for further use. The deep hardening of tractor caterpiller links by a shower. Hardening and tempering of caterpillar links by the old method failed to ensure an even hardness due to uneven cooling caused by the configuration of the link. Figure 2 shows a new installation providing for an automatic line of shower deep hardening. The novelty in the whole process consists in the method by which the links, after being heated, are plunged in a shallow bath upside down; a shower provides for intense cooling of the lower part of the link while the upper part is subject to a lesser degree of cooling. After 15 seconds, the link falls into the hardening tank from which a conveyor belt picks it up and transfers the hardened link to the tempering oven. From here another conveyor belt places the finished links in a bucket, in which they are automatically covered with oil. The bucket is then taken by a skip hoist to the dispatching platform. The whole installation is claimed to have saved a great amount of labor and time, besides turning out caterpillar links of a higher quality. The automation of the chilled hardening and chilled

cyaniding processes. In this case the automatic line consists of a succession of operations in accordance with the technological process, providing for successive immersion in certain melted salts, such as sodium chloride and barium chloride, or in alkali baths, water baths and passivation tanks. On these automatic lines, chilled hardening can be carried out without consecutive tempering, also hot chilled hardening with consecutive tempering in alkali baths. Immersion is done by means of conveyor chains with suspended holding devices. The Trueing of washers. Stuffing box washers for tractors S-80 (Steel 20G) have an outer diameter of 242 mm and an inner diameter of 1,800 mm and a thickness of 6 mm; warp should not exceed 0.2 mm. Since trueing by hand interferes with the cementation layer of the washer, trueing is now being accomplished by a specially constructed device (Figure 3) in which lots of 30-35 washers are packed and the bolt on the center pin tightened. The device is then put into an electric oven of the type PN-32 and heated to 200° for 1½-2 hours. The trueing is done during the heat treatment. A mechanized production line for pinions under thermal treatment. The old fashioned pusher-type oven is being replaced

The Latest in the Technology of Thermic Treatment 117-58-5-5/24

by a mechanized line for thermal treatment of pinions (Figure 5). After being loaded on the tray, the parts pass through the hardening oven. After heating, the parts pass through the oil hardening process. Having been washed, the pinions are tempered and conveyed on a roll table to a cooling tank. The last operation is blast cleaning by metal shot. The organization of this production line has paid for itself by turning out better quality pinions and by freeing labor of unnecessary inter-operational manipulation. There are 5 figures.

ASSOCIATION: Chelyabinskiy traktornyy zavod (Chelyabinsk Tractor Plant)

AVAILABLE: Library of Congress

Card 4/4 1. Cementation-Processes

Lebedev, A.F.

PHASE I BOOK EXPLOITATION SOV/3482

Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Sverdlovskoye otdeleniye

Mekhanizatsiya i avtomatizatsiya mashinostroitel'nogo proizvodstva (Mechanization and Automation in the Machine-Building Industry) [illegible], 1959. 519 p. 12,000 copies printed.

Ed.: Ya. V. Pal'mov, Doctor of Technical Sciences; Tech. Ed.: [illegible] Editorial Board: P. P. Vahivkov, Engineer, V. V. [illegible] Technical Sciences, Ya. V. Pal'mov, Doctor of Technical [illegible] Poruchikov, Candidate of Technical Sciences, V. V. [illegible] Technical Sciences, K. N. Sokolov, Candidate of [illegible] Sokolovskiy, Candidate of Technical Sciences, N. I. [illegible] B. K. Shumayev, Candidate of Technical Sciences, and P. V. [illegible] sor.

PURPOSE: This book is intended for production engineers and personnel [illegible] in industrial planning.

COVERAGE: The material presented in this book is said to be based on [illegible] developed and tested in the machine-building plants of the [illegible] of Siberia. Listed are various methods of mechanization and automation and their applications in foundries, forging shops, and [illegible]. Other fields of use include welding, hoisting, conveying, heat [illegible], and quality control on an industrial scale. Various mechanisms, devices, tools, and instruments currently used in mechanization and automation of these industrial processes are described and illustrated. The equipment [illegible] is said to have been produced by the plants using their own resources. The economic aspects of mechanization and automation are discussed. There are [illegible]

LEBEDEV, A.F.

Modernized nozzle of an industrial gas burner. Gaz. prom. 5 no. 12:34 D '60. (MIRA 14:1)

(Gas burners)

RAYTSES, Veniamin Borisovich; LEBEDEV, Afanasiy Fedorovich; ZAKHAROV, B.P., retsenzent; DUGINA, N.A., tekhn. red.

[Skill of a heat-treatment specialist] Masterstvo termista. Moskva, Mashgiz, 1961. 206 p. (MIRA 15:3)
(Metals--Heat treatment)

ARGUTINSKIY, V.N.; LEBEDEV, A.O., redaktor; MATVEYEV, A.P., tekhnicheskiy redaktor; NATAPOV, M.I., tekhnicheskiy redaktor

[The use of explosives in lumbering] Vzryvnye raboty v lesnoi promyshlennosti. Moskva, Vses. kooperativnoe izd-vo 1953. 125 p. [Microfilm] (MLRA 8:2)

(Lumbering) (Blasting) (Explosives)

S/148/60/000/007/001/015
A161/A029

AUTHORS: Vlasov, V.G., and Lebedev, A.G.

TITLE: Dissociation of Uranium Trioxide

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Chernaya metallurgiya, 1960, Nr 7, pp 5-9

TEXT: Dissociation of UO_3 has been studied in a 10^{-4} Hg vacuum to investigate the kinetics and the mechanism of the process. UO_3 was prepared by a method described in Ref 4 by heating $UO_4 \cdot 2H_2O$ for 3 hours in an oxygen flow at 350°C and for 1 hour at 400°C. The orange-red UO_3 could easily be rubbed to fine powder and pressed into 1.4-1.5 g briquets. Dissociation was studied by the decreasing weight of trioxide on spring scales. The vacuum installation had been previously described /Ref 2/. The process started at 420°C. Complete dissociation into U_3O_8 took place at 550°C in 1 hour and could not be obtained at lower temperatures (curves, Figure 1). The dependence of the dissociation rate on the dissociation degree was stated (curves, Figure 2). As can be seen, the

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Dissociation of Uranium Trioxide

dissociation process rate was constant in the beginning, expressed by the formula: $g = kt$ where g is dissociation in %, t - time in minutes after start of experiment, k - the proportionality coefficient, until a 42%-dissociation was reached and solid phases of the summary composition $UO_{2.87}$ remained in the reaction space, where the separation of oxygen abruptly dropped to a new constant level of $g = 0.091t + 17.90$ (2). At 500°C, decomposition progressed somewhat differently (Formulae 3 and 4). At 550° it was constant until a 65%-separation of oxygen from trioxide was attained at a rate of $g = 4.65t + 40.9$ (5). If the reaction proceeded further, the rate dropped to

$$\lg \frac{g}{100 - g} = 0.0608t. \quad (6)$$

The constant reaction rate in the beginning may be explained by a high number of defective spots caused by crushing before briquetting, and by the beginning of the dissociation on these spots, where oxygen was removed from the surface by chance law. Later the active centers disappeared. The abrupt change in the rate after the 42% dissociation point at 540°C can be explained on the basis of the structural diagram of the U - O system /Ref 3/. According to this diagram the dissociation of UO_3

Dissociation of Uranium Trioxide

in the beginning proceeds without producing a new solid phase in connection with the existence of the region of solid solutions, the oxygen content of which is only reduced. At 500°C, higher temperature caused a faster disappearance of active centers and apparent growth of diffusion resistance in the layer of the forming reaction products. At 550°C dissociation can be described by equation (6). The apparent activation energy in the beginning stage (to 30% oxygen separation) has been calculated as 37.2 kcal/mol, which well agrees with the reaction heat effect value of $6UO_3 = 2U_3O_8 + O_2$ determined by Brewer /Ref 5/ to be 35 kcal/mol and confirms the opinion of S.Z. Roginskiy /Ref 6/ that the activation energy of the majority of topochemical reactions in conditions far from equilibrium is approximately equal to the heat effect. There are 2 figures and 6 references: 5 are Soviet and 1 English.

ASSOCIATION: Ural'skiy politekhnicheskiy institut (Ural Polytechnic Institute)

SUBMITTED: July 14, 1959

LEBEDEV, A G

S/080/61/034/008/005/018
D204/D305

21.2100

AUTHORS: Vlasov, V.G. and Lebedyev, A.G.

TITLE: The dissociation kinetics of uranium oxides

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 8, 1961, 1739-1744

TEXT: The present work was undertaken because of the lack of information on the kinetics and mechanism of the dissociation processes of uranium oxides. Knowledge of these would be of interest for technological processes, based on the dissociation of oxides as well as being examples of a topochemical process. Specifically, UO_3 and U_3O_8 were investigated. UO_3 was prepared by heating $UO_4 \cdot nH_2O$ in a stream of O_2 for 3 hours at 350°C, followed by 1 hour at 400°C; the resulting product was finely ground and pelletized. U_3O_8 was prepared by heating UO_4nH_2O in air for 1 hour at 800°C and then in O_2 for 1 hour at 900°C; this product was pulverized and used in a powdery form. Dissociation processes were followed by continuously recording the loss of weight of the heated oxides by means of a

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S/080/61/034/008/005/018
D204/D305

The dissociation kinetics...

spring balance. The initial rate of dissociation was determined by the angle of the tangent to the curve of oxygen removal plotted against time. The apparent activation energy was calculated from Arrenius' equation. Results: UO_3 dissociates at a convenient rate at 450-650°C, while complete conversion into U_3O_8 was reached only at 550°C and above. At 450°C, UO_3 dissociates at a constant rate, following the equation: $g = 0.168\,t$ (g - degree of dissociation, %: t - time elapsed from the onset of the desired temp. min). At g = 42%, the rate diminishes abruptly and then becomes constant, as shown by equation: $g = 0.091t + 17.90$. At 500°C, the initial rate follows equation $g = t + 9$ and after g = 30% dissociation is expressed by $(g - 30)^2 = 15.3\,(t - 21)$. At 550°C the expression is $g = 4.65t + 40.9$ until g = 65% and thereafter $\lg \frac{g}{100 - g} = 0.0608$.

The influence of O_2 at various part. pressures, on the rate of dissociation of UO_3 was investigated and found to be represented by equation: $v = A - kp_{O_2}$, where A and k are constants at a given temperature. The apparent energy of activation, calculated from

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The dissociation kinetics...

g 30% was 37.2 Kcals/mole. U_3O_8 at 700°C dissociates at a constant rate, following the equation: $g = 0.03\ t$. At 800°C the corresponding expression is $\lg \frac{a}{a - g} = k_1 t$. (a - degree of dissociation, %, corresponding to the conversion $U_3O_8 \rightarrow UO_{2.6} + x$ of a minimum oxygen content, i.e. $UO_{2.55}$): a is 17.9% and values of k_1 at 800, 900 and 1000°C are $3.08 \cdot 10^{-3}$, and $1.97 \cdot 10^{-2}$ respectively. Beyond a = 18% dissociation proceeds at a constant rate and is represented by: $g = k_2(t - t_o) - 18$, where t_o is the time required for reaching g = 18% and k_2 - a constant at a given temperature. values of k_2 and t_o are given below:

temp. (°C)	1000	900	800
k_2	0.1	0.06	0.04
t_o(min)	70	165	330

There are 3 figures and 10 references: 7 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: F. Gronvold, J. Inorg. Nucl. Chem. 1, 357 (1955); The

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The dissociation kinetics... 25223
S/080/61/034/008/005/018
B204/B305

Transuranium Elements, Part II, Papers 6, 40 to 22, 80, 861. New-York - Toronto - London (1949).

SUBMITTED: October 3, 1960

Card 4/4

ZHUKOVSKIY, V.M.; VLASOV, V.G.; LEBEDEV, A.G.

Electric properties of the system uranium - oxygen in the range of U_3O_8 - UO_2 compounds. Fiz. met. i metalloved. 14 no.2:319-320 Ag '62. (MIRA 15:12)

1. Ural'skiy politekhnicheskiy institut imeni Kirova.
(Uranium compounds—Electric properties)

41523
S/126/62/014/003/020/022
E039/E420

AUTHORS: Zhukovskiy, V.M., Vlasov, V.G., Lebedev, A.G.

TITLE: Electrical properties of the uranium-oxygen system in the range of composition UO_3 to U_3O_8

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.3, 1962, 475-478

TEXT: The range of uranium-oxygen compounds UO_2 to U_3O_7 investigated by other workers is extended to cover UO_3 to U_3O_8. Electrical conductivity is measured in the temperature range 25 to 200°C. Samples are prepared from UO_3 by dissociation in a muffle furnace. Spectroscopic measurements show the presence of impurities Na, K, Mn, Fe, Si and Al, the largest component being Na at 3.8×10^{-2}%. Debye-Scherrer X-ray analysis indicates that UO_3 is amorphous while U_3O_8 has a hexagonal lattice. Intermediate compounds show a mixture of the two phases, even $UO_{2.97}$ exhibits weak lines of the U_3O_8 structure. Samples are formed into tablets 14.5 mm in diameter and 7 mm thick at a pressure of 3000 kg/cm^2. Densities after compression are 3.0 g/cm^3 (for UO_3) and 3.65 g/cm^3 (for U_3O_8). Resistances in the range 10^6 to

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10^{11} ohms are measured using a constant current megohmmeter with an accuracy of 2 to 20%. Resistances in the range 10^{-1} to 10^{-6} ohm are measured using an a.c. bridge at 1000 c/s with an accuracy of better than 5%. Samples are measured under vacuum (10^{-3} to 10^{-4} mm Hg). Values of the specific electrical conductivity $\varkappa$ ($ohm^{-1}cm^{-1}$) for UO_3 and $UO_{2.67}$ at 25 and 200°C are given in the table. The temperature dependence of the electrical conductivity is given by

$$\varkappa = A \exp(- \Delta E/2kT)$$

where ΔE is the activation energy. Isotherms of $\varkappa$ are given and also the dependence of ΔE on composition. It is shown that all samples have a negative thermal emf with respect to copper. Both the electrical measurements and X-ray analysis show that there is a transition from a state of low order for UO_3 to greater order for U_3O_8. There are 2 figures and 1 table.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S.M.Kirova
(Ural Polytechnical Institute imeni S.M.Kirov)

VLASOV, V.G.; ZHUKOVSKIY, V.M.; LEBEDEV, A.G.; SHALAGINOV, V.N.

Adsorption of certain gases on uranous-uranic oxides. Izv. vys. ucheb. zav.; tsvet. met. 6 no.4:113-117 '63. (MIRA 16:8)

1. Ural'skiy politekhnicheskiy institut.
(Uranium oxides) (Adsorption)

L [illegible]-65 EWT(m)/EPF(c)/EPF(n)-2/EPR/EWP(t)/EWP(c) Pc-4/Pu-4 [illegible](c)
[illegible]
ACCESSION NR: AP5011043 UR/0080/64/037/010/2170/2175

AUTHOR: Vlasov, V. G.; Zhukovskiy, V. M.; Lebedev, A. G.; Shalaginov, V. N.

TITLE: Adsorption of certain gases on uranium trioxide

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 10, 1964, 2170-2175

TOPIC TAGS: uranium, uranium compound, inorganic oxide, gas adsorption, hydrogen, carbon monoxide, ammonia, nitrogen, carbon dioxide, water vapor

Abstract: Experimental data is presented on the adsorption of hydrogen, carbon monoxide, ammonia, nitrogen, carbon dioxide, and water vapor on uranium trioxide at temperatures close to the temperatures of the incipient reduction of this oxide. It was found that the absorption of hydrogen is very limited. At temperatures above + 50° an increase in temperature reduces the adsorbability of hydrogen. Carbon monoxide is adsorbed to an extent one order of magnitude greater then hydrogen. Nitrogen is poorly adsorbed on uranium trioxide and is similar to hydrogen. Experiments on adsorption of nitrogen and ammonia showed that the adsoprtion depends on the pressure of gas-reducing agent. An increase in ammonia pressure prolonged the induction period and retarted the reduction period. The existence of such a function, and also the abnormally high value of

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L 38579-65
ACCESSION NR: AP5011043

the apparent energy of activation of UO_3 for reduction by ammonia led to the hypothesis that reduction as a whole is limited by decomposition of ammonia or desorption of nitrogen. Orig. art. has 1 figure and 5 graphs.

ASSOCIATION: none

SUBMITTED: 27Nov62	ENCL: 00	SUB CODE: IC, GC
NO REF SOV: 008	OTHER: 003	JPRS

Card 2/2

VLASOV, V.G.; TKACHENKO, Ye.V.; LEBEDEV, A.G.

Mechanism of the reduction of uranium oxides by solid carbon.
Zhur.prikl.khim. 37 no.7:1414-1420 Jl '64.
(MIRA 18:4)

LEBEDEV, A.G.

Effect of the degree of well entry into oil sands on the well output and the ultimate oil recovery. Trudy Inst.geol.AN Azerb.SSR 15:135-159 '54. (MLRA 9:1)
(Petroleum engineering)

LEBEDEV, A.G.

Using geological statistical and volumetric methods for the estimation of underground resources of petroleum in layers under exploitation. Report no.1. Uch.zap.AGU no.11:19-30 '55.
(MLRA 9:11)

(Petroleum engineering)

LEBEDEV, A.G.

Methods for the estimation of underground resources of petroleum and use of geological statistical curves in estimating residual resources for secondary exploitation methods. Report no.2. Uch.zap.AGU no.12:37-52 '55. (MLRA 9:11)
(Petroleum engineering)

LEBEDEV, A.G.

Effect of the geological and technical conditions of well entry on the technological system of petroleum layer exploitation. Uch. zap. AGU no.11:25-34 '56. (MLRA 10:4)
(Petroleum engineering)

LEBEDEV, A. G.

LEBEDEV, A.G.

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