

ZAGULYAYEVA, A.I., nauchnyy sotrudnik; SHUVAYEV, V.M.

Rapid method for manufacturing leather from whale skin.  
Kozh.-obuv.prom. no.12:7-9 D '59. (MIRA 13:5)

1. Tikhookeanskiy nauchno-issledovatel'skiy institut morskogo  
rybnogo khozyaystva i okeanografii (for Zagulyayeva).  
(Whale) (Leather)

ZAGULYAEVA, A. I.

USSR/Pharmacology, Toxicology. Chemotherapeutical Preparations

V-7

Abs Jour : Ref Zhur - Biol., No 5, 1958, No 23454

Author : Zagulyaeva A.I.

Inst : Saratov Medical Institute

Title : Sinotomycin Therapy of Typhoid Children

Orig Pub : Tr. Saratovsk. med. In-ta, 1957, 9, 253-261

Abstract : No abstract

Card : 1/1

ZAGULYAYEVA, O.A., assistant

Surgical diseases in middle and old age as indicated by records of the surgical clinic of the Izhevsk Medical Institute and the city Medical Experts' Commission on Workers' Disability. Trudy Izhev.gos. med.inst. 13:85-87 '51. (MIRA 13:2)

1. Iz fakul'tetskoy khirurgicheskoy kliniki Izhevskogo meditsinskogo instituta. Zaveduyushchiy klinikoy prof. S.A. Florov. (MED—SURGERY)

ZAGULYAYEVA V. A

Г. А. Бурман

Выяснение путей распространения радиоизлучения в атмосфере. Статистика радиопомех на частоте 100 до 1000 МГц.

В. В. Козловский

Методы радиотехнической разведки в условиях сложной обстановки.

Г. В. Бондарь, Ю. В. Козловский

Изучение статистических закономерностей в радиотехнической разведке в условиях сложной обстановки.

11 часов  
(с 10 до 18 часов)

В. А. Соболев, А. Д. Петровский

О радиотехнической разведке в условиях сложной обстановки.

С. М. Давыдов (Москва)

Изучение статистических закономерностей в радиотехнической разведке в условиях сложной обстановки.

В

В. А. Бурман

Изучение статистических закономерностей в радиотехнической разведке в условиях сложной обстановки.

В. В. Козловский

Сравнительный анализ статистических закономерностей в радиотехнической разведке в условиях сложной обстановки.

В. С. Бондарь, А. В. Козловский

Изучение статистических закономерностей в радиотехнической разведке в условиях сложной обстановки.

11 часов  
(с 10 до 18 часов)

В. С. Бондарь (США)

Изучение статистических закономерностей в радиотехнической разведке в условиях сложной обстановки.

В. В. Козловский

Изучение статистических закономерностей в радиотехнической разведке в условиях сложной обстановки.

Г. В. Бондарь

Изучение статистических закономерностей в радиотехнической разведке в условиях сложной обстановки.

В

report submitted for the Confidential Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications St. A. S. Popov (VSEI), Moscow, 8-12 June, 1959

ZAGULYAYEVA, V.A.

Lunar tidal fluctuations of the minimum effective heights of the  
F2 layer. Geomag. i aer. 3 no.6:1132-1134 N-D '63. (MIRA 16:12)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya  
radiovoln AN SSSR.

ZAGULYAYEVA, V.A.

Lunar tidal variations of critical frequencies of the E-layer.  
Geomag. i aer. 3 no.4:766-767 II-ag '63. (MIRA 16:11)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya  
radiovoln AN SSSR.

30941

S/570/60/000/017/011/012

E032/E114

9.9/00

AUTHOR: Zagulyayeva, V.A.

TITLE: Lunar tide oscillations in the ionosphere

SOURCE: Akademiya nauk SSSR, Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln. Trudy, no.17(27). Moscow, 1960. Rasprostraneniya radiovoln i ionosfera. 282-286

TEXT: The present author reports results of calculations of lunar tide changes in the ionosphere. The calculations are based on experimental results obtained in vertical sounding at four Soviet ionospheric stations (Ashkhabad, Moscow, Tomsk, Irkutsk). Diurnal effects were excluded by calculating the difference between the observed values and the monthly median value for the same hour. In this way curves were obtained for the lunar variations  $\Delta f_oF2$  and  $\Delta h'F2$  for each lunar phase. The resulting curves were subjected to harmonic analysis and the amplitudes and phases of the first four harmonics were determined. The numerical results obtained are summarised in graphs and tables. Comparison with the results obtained by R.A. Duncan (Ref.2; Austral.J.Phys., v.9, N 1, Card 1/2

4

Lunar tide oscillations in the ...

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E032/E114

112, 1956) showed that the phases of lunar tide oscillations are approximately the same at all intermediate-latitude stations in the northern and southern hemispheres. The amplitude of the tides decreases with increasing latitude. However, further studies are necessary in order to confirm these conclusions reliably. There are 6 figures, 4 tables and 3 non-Soviet-bloc references.

4

The English language references read as follows:

Ref. 1: D.F. Martyn, Proc. Roy. Soc., v.194, 425, 1948.

Ref. 2: R.A. Duncan, Austral. J. Phys., v.9, N 1, 112, 1956.

Ref. 3: D.F. Martyn, Proc. Roy. Soc., v.189, 241, 1947.

Card 2/2

**ZAGUMENNIKOVA, H.K.**

**Acceleration of mineralization of food products of animal origin in  
determination of arsenic. Gig. sanit., Moskva no. 1141 Jan 1953.  
(OLML 24:2)**

**1. Republic Bureau of Forensic Medicine Certification of the Ministry  
of Public Health Kazakh SSR.**

ABRAMSON, Kh.I., inzh.; DMITRIYEVA, Ye.R., ZAGUMENNYI, A.I., inzh.;  
KOCHETOV, V.V., inzh.; RUMYANTSEV, V.A., inzh.; STSIPKO, Ye.I., inzh.

[Technological layouts for equipping mine shafts of mining enterprises with solid concrete supports] Tekhnologicheskie skhemy sooruzheniia shakhtnykh stvolov gornykh predpriatii s betonnoi monolitnoi krep'iu. Moskva. Pt.1. [Using KS-3 pneumatic loaders in shaft sinking] Prokhodka stvolov s primeneniem pnevmogruzchikov KS-3. 1962. 34 l. (MIRA 1616)

1. Tsentral'nyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut podzemnogo i shakhtnogo stroitel'stva.  
(Mine timbering--Equipment and supplies)

ZAGUMENNYI, A. I.

[Controlling salinization in irrigated lands] Bor'ba s  
zasoleniem oroshaemykh zemel'. Alma-Ata, Kazakhskoe gos.  
izd-vo 1962. 69 p. (MIRA 16:4)  
(Irrigation farming)

PISHKIN, B.A. [Pyshkin, B.A.], otv.red.; ARISTOVSEIY, V.V. [Aristovs'kiy, V.V.], doktor tekhn.nauk, red.; GUZOV, M.Z. [Guzov, M.Z.], kand.tekhn.nauk, red.; ZAGUMENNYI, O.G. [Zagumennyi, O.G.], red.; PECHKOVS'KAYA, O.M. [Pechkovs'ka, O.M.], red.izd-va; MIL'OKHIN, I.D., tekhn.red.

[Calculation of seepage through hydraulic structures; collection of scientific works] Fil'tratsiini rozrakhunky gidrotekhnichnykh sporud; zbirnyk naukovykh prats'. Kyiv, 1959. 161 p.

(MIRA 13:2)

1. Akademia nauk URSR, Kiev. Rada po vyvchenni produktivnykh syl URSR. 2. Chlen-korespondent AN URSR, golova Komisi po problemi kompleksnogo vikoristannya vodnikh resursiv URSR RPS AN URSR (for Pishkin).

(Hydraulic engineering--Tables, calculations, etc.)

ZAGUMENNYI, V.G.

V.Ivanov's expedition into the heart of Alaska. Isv. AN SSSR.  
Ser. geog. no.3:97-102 M. Je '63. (KIRA 16:8)  
(Alaska—Russian exploration)

ZAGUMENNY, V., Inzh.

Translator testing F-434 voltmeter. Radio no. 10:43-44 0 164.  
(MIRA 16:2)

ZAGUMENNYKH, V.

In the interests of collective farmers. Sov.kras.krest 4 no.1:6-7  
Ja-Mr '54. (MLRA 7:4)  
(Medicine, Rural)

ZAGUMENNYKH, V. V.

SPERANSKAYA, S.M.; ZAGUMENNYKH, V.V. (Moskva)

Activists in rural hygiene. Vol'd. 1 akush. no.7135-37 J.I. '54.

(MLRA 7:7)

(HYGIENE

\*Russia, rural areas, sanitary activity)

1. ZAGUMENNYI, A.
2. USSR (600)
4. Drainage
7. Using a temporary drainage system in putting saline fallows back into production. Khlopkovodstvo no. 12: 1952.

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

ZAGUMENNYI, A. I.

"Reclamation Works on Solonchak-Type Fallow Lands in Golodnaya Step'." Min. Culture USSR, Tashkent Inst. of Engineers of Irrigation and Mechanization of Agriculture (TIIMSKh), Tashkent, 1954. (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya Letopis', No. 22, 1955, pp 93-105

ZAGUMENYYI, A.V. (Yaroslavl')

Earthwork during the winter. Stroil.pred.neft.prom. 1 no.6:20-21  
Ag '56. (MIRA 9:9)

(Earthwork--Cold weather conditions)

AUTHORS: Filippenko S.V. and Zagurnyy S.I. (Engineers).

TITLE : Automatic butt-welding under a layer of flux of pipes from 150 to 425 mm diameter. (Avtomaticheskaya svarka pod slozem flyusa stykov trub diametrom ot 150 do 425 mm.) 114-7-10/14

PERIODICAL: "Energomashinostroyeniye" (Power Machinery Construction) 1957, No.7, Vol.3, pp.31-32. (U.S.S.R.)

ABSTRACT : Automatic welding under a layer of flux has radically altered the working conditions of welders and has made it possible to organize flow production of welded parts. The new method has become widely used in many branches of industry including boiler making. Automatic welding under a layer of flux is widely used in the Podol'sk Engineering works imeni Ordzhonikidze. For a long time particular parts including small diameter tubes were welded by hand. However, an automatic welding procedure has been developed and at the present time all annular butt joints on chambers, straight tubes and other parts from 150 to 425 mm diameter of low carbon steel are welded automatically. In developing the construction of the welding head the feed mechanism of semi-automatic device  $\Gamma W$ .-5 was taken as a basis. The equipment has a device for straightening the electrode wire, a mechanism for moving the mouth piece with the welding wire to the right and left of the axis of the weld, and a mechanism for controlling the feed of the electrode wire.

1/3 The equipment is controlled by a number of push-buttons. The

Automatic butt-welding under a layer of flux of pipes from 150 to  
425 mm diameter. (Cont.) 114-7-10/14

method of shaping the ends of pipes for butt-welding is illustrated in Fig.1. The butt-joints are assembled and tacked down by welding in three or four places. The assembled butt joints are carefully cleaned particularly at the places of tacking down and are then delivered to the automatic welding installation. The method of making the welded joints is described. As the weld gets wider near the top the mouthpiece and welding wire rock further across the axis of the weld. The weld, when complete, lines up smoothly with the parent metal. The conditions of automatic welding of annular joints, the brand of steel, pipe size and comparative data for hand and automatic welding are given in Table 1. The flux is recovered for further use. The mechanical tests applied to welded joints made on the automatic equipment are given in Table 2. It is concluded that it is obviously advisable to make the welding of pipes and other parts automatic. The main advantages of automatic welding over hand is that the quality of the welding is much better and the output of the welders is increased three or fourfold. There is no need to employ very highly qualified welders. Automatic

2/3

Automatic butt-welding under a layer of flux of pipes from 150  
to 425 mm diameter. (Cont.) 114-7-10/14

3/3 welding gives an economy of electric power, and electrode wire  
and improves the working conditions of the welders.  
There are four figures and two tables. There are no literature  
references.

AVAILABLE:

PANOV, I.V.; ANTONINOV, V.N.; SOKOLOV, D.D.; ~~ZAGUMENNY, V.V.;~~  
CHEREPNIN, S.V.; OBYDENNY, P.T.; KOROBOV, A.S., red.;  
KOMONOV, A.S., red. izd-va; KHENOKH, F.M., tekhn. red.

[Provisional technical specifications for planning landscaping operations] Vremennye tekhnicheskie uslovia na proektirovanie rabot po ozeleneniiu. Utverzhdeny prikazom po Ministerstvu kommunal'nogo khoziaistva RSFSR No.233 ot 20 oktiabria 1961. Izd-vo M-va kommun.khoz.RSFSR, 1962. 147 p. (MIRA 15:8)

1. Gosudarstvennyy institut po proyektirovaniyu kommunal'nogo stroitel'stva.

(Landscape gardening)

KOZLOVSKAYA, L.S.; FADEYEVA, T.N.; ZAGURAL'SKAYA, L.M.

Effect of invertebrates on the decomposition of the upper  
sphagnum soil. Izv. SO AN SSSR no.12: Ser biol.-med. nauk  
no.3:50-56 '64. (MIRA 18:6)

1. Institut lesa i drevesiny Sibirskogo otdeleniya AN SSSR,  
Krasnoyarsk.

ZURKOV, P.E., prof., doktor tekhn. nauk, zasluzhennyy deyatel' nauki i tekhniki RSFSR; TOGUNOV, Yu.V., dotsent, kand. tekhn. nauk; YELENSKIY, S.I., kand. tekhn. nauk; KONDRATENKO, V.P.; TIKHOVIDOV, A.F., dotsent; RUDNIK, M.I., gornyy inzh.; KORKUNOV, G.S., gornyy inzh.; RACHITSKIKH, I.G., gornyy inzh.; ZAGURAYEV, V.G., gornyy tekhnik

Concerning the book by N.V. Mel'nikov and L.N. Marchenko "Energy of the blast and construction of the charge". Ugol' 39 no.10:62-63 0 '64. (MIRA 17:12)

1. Nachal'nik kombinata Chelyabinskugol' (for Kondratenko).
2. Glavnyy inzh. Magnitogorskogo rudnika (for Tikhovodov).
3. Permskiy politekhnicheskii institut (for Rudnik, Korkunov).
4. Bereznikovskiy sodovyy zavod (for Rachitskikh, Zagurayev).

AUTHORS: Gerasimenko, N.I. and Zagurnyy, S.I. SOV 125-58-3-14/15

TITLE: Tests of "ANF-5" Flux in Automatic Welding of IX18N9T-Steel" (Ispytaniya flyusa ANF-5 pri avtomaticheskoy svarke stali IX18N9T)

PERIODICAL: Avtomaticheskaya svarka, 1958, Nr 3, pp 90-92 (USSR)

ABSTRACT: The Institute of Electric Welding imeni Ye.O. Paton developed a new, fused, oxygenless "ANF-5" flux of the following chemical composition: 75 to 80%  $\text{CaF}_2$ ; 17 to 25%  $\text{NaF}$ ; 2%  $\text{SiO}_2$  maximum; 0.05% S maximum; 0.02% P maximum. The technological properties of this flux were tested in 1956 at the welding laboratory of the Podol'sk Machinebuilding Plant imeni Ordzhonikidze. Tests were carried out on IX18N9T-steel plates of 1000 x 150 x 10 mm of the following chemical compositions: 0.07% C; 19.50% Cr; 9.56% Ni; 1.11% Mn; 0.48% Si; 0.40% Ti; 0.031% S and 0.012% P. The article gives detailed data on the composition of welding rods, seam metal, and the technology of the welding process. Tests have shown that the seam welded with "ANF-5" flux have a high resistance against cracks and corrosion and satisfactory mechanical properties.

Card 1/2

SOV 125-58-3-14/15

Tests of "ANF-5" Flux in Automatic Welding of "IX16N9T-Steel"

There are 4 tables and 1 Soviet reference.

ASSOCIATION: Podol'skiy zavod imeni S. Ordzhonikidze (Podol'sk Plant  
imeni S. Ordzhonikidze)

SUBMITTED: February 13, 1957

1. Welding fluxes--Test results    2. Welding fluxes--Materials

Card 2/2

ZAGUMENNYI, V.V.

State of nurseries in the R.S.F.S.R. Trudy Bot. Inst. Ser. 6 no. 7:  
429-431 '59. (MIRA 13:4)

1. Gosudarstvennyy respublikanskiy institut proyektirovaniya  
kommunal'nogo stroitel'stva, Moskva.  
(Nurseries (Horticulture))

ZAGUROV, G.

Case of broncholithiasis. *Suvrem. med.*, Sofia 8 no.3:100-103 1957.

1. Iz patoloanatomichnoto otdelenie na Okruzhnata bolnitsa - *gr.*  
Khaskovo (Gl. lekar: d-r N. Petev)  
(BRONCHI, calculi,  
case report (Bul))

ZAGUROV, G.

Rare carcinomatous myxocystomatosis of the liver, *Suvrem. med.*, Sofia  
8 no.9:79-82 1957.

1. Iz Patologoanatomichnoto otdelenie na Okruzhnata bolnitsa - Khaskovo.  
(CARCINOMA COLLOID, case reports  
bile duct, with myxocystomatosis of liver & peritoneum)  
(LIVER, cysts  
myxocystomatosis, with colloid carcinoma of bile duct &  
myxocystomatosis of peritoneum)  
(BILE DUCTS, neoplasms  
colloid carcinoma with myxocystomatosis of liver & peritoneum)  
(PERITONEUM, cysts  
myxocystomatosis, with colloid carcinoma of bile ducts &  
myxocystomatosis of liver)

ZAGUROV, G.

Heart tuberculosis, case report. *Suvrem. med.*, Sofia 8 no.12:122-125  
1957.

1. Iz Okrushnata bolnitsa--gr. Khaskovo (Gl. lekar: N. Fatev).  
(TUBERCULOSIS, CARDIOVASCULAR, case report  
(Bul))

ZAGUROV, G.

~~A case of funicular myelosis in chronic rheumatism. Sovrem. med., Sofia  
9 no.6:98-99 1958.~~

1. Iz Patologoanatomichното otdelenie pri Okruzhnata bolnitsa v gr.  
Khaskovo. (Gl. lekar: H. Petev).

(SPINAL CORD, dis.

funicular myelosis in chronic rheum., case report (Bul))

(RHEUMATISM, compl.

funicular myelosis in chronic rheum., case report (Bul))

ZAGURSKIY, V.A.; ZAL'TSMAN, L.G.; CHERNAYA, S.M.; CHAYKOVSKIY, Yu.B.

The AG-16 and AG-18 automatic electroplating lines. Avtom. i prib. no.2:  
66-69 Ap-Je '65. (MIRA 18:7)

ZAGORSKIY, V.I., kand. tekhn. nauk

Machining threaded parts on lathes. Mashinostroitel' no.10:31  
0 '63. (MIRA 16:12)

ZAGURSKI, Zbigniew Pawel [Zagorski, Zbigniew Pawel]; NEY, Wlodzimerah [Ney, Wlodzimierz]

An irradiation unit for the investigation of samples by physical or physicochemical methods in the gamma radiation field. Nukleonika 5 no.4:219-226 '60.

1. Institut yadernykh issledovaniy PAN, Varshava, Laboratoriya radiatsionnoy khimii.

ZAGURSKIY, N. I.

USSR/Medicine - Infectious Diseases

Oct 50

"Listerellosis in Swine," N. I. Zagurskiy, A. S. Pogorelko, Veterinarians Mezhin Inter-Rayon Vet Bacteriol Inst, Chernigovsk Oblast

"Veterinariya" No 10, pp 26-28

Observed serious outbreak of listerellosis toward end of Jan 49. Describes clinical manifestations, pathol and anat changes, diagnosis and gen etiol of the disease in detail.

186T93

ZAGURSKIY, V. I.

USSR/ Engineering - Machine tools

Card 1/1 Pub. 103 - 15/55

Author : Zagurskiy, V. I.

Title : The conversion of a turning lathe into a screw-cutting lathe

Periodical : Stan. i instr. 1, page 39, Jan 1955

Abstract : Methods of converting a turning lathe into a screw-cutting lathe are described and drawings are included. The construction of the lathe is presented.

Institution : .....

Submitted : .....

ZAGUBSKIY, V.I.

Cutting machine assembly for making grooves. Sel'khozmaschina no.2:  
30 F '57. (MIRA 10:4)

(Metal cutting)

Zagurskiy, V.I.

AUTHOR: Zagurskiy, V.I., Engineer

117-3-4/28

TITLE: Machining Cylindrical Bodies Without Cutting (Obrabotka tel  
vrashcheniya bez snyatiya struzhki)

PERIODICAL: Mashinostroitel', 1958, # 3, p 10-13 (USSR)

ABSTRACT: The article contains general information available on existing  
methods of forming screw thread, gears, and spline shafts by  
rolling.

There are 8 figures and 7 Russian, 2 English, and 1 German  
reference.

AVAILABLE: Library of Congress

Card 1/1

ZAGURSKIY, V.I., insh.

Accuracy in cutting external threads with self opening die heads.  
Trakt. i sel'khoz mash. no. 3:36-40 Mr '58. (ICRA 11:5)  
(Screw-cutting machines)

ZAGURSKIY, V.I.

Increasing the strength of cutting tools which are used for making fastenings. Trakt. i sel'hozmash. 31 no.1:36-38 Ja '61.

(MIRA 14:1)

(Metal-cutting tools)

ZAGURSKIY, V.I.

Automated thread cutting. Trakt. 1 sel'khormash. 31 no.3:46-47 Mr '61.

(MIRA 14:3)

(Screw cutting)

ZAGURSKIY, V.I., kand. tekhn. nauk

Active control in machining bushings. Mashinostroitel' no. 3:5  
Ag '62. (MIRA 15:8)

(Metal cutting)

ZAGURSKIY, V.I., kand.tekhn.nauk

Grinding helical surfaces with an unequal pitch. *Mashinostroenie*  
no.6:16-19 N-D '62. (IRR 16:2)

1. Nauchno-issledovatel'skiy institut tekhnologii mashinostroyeniya Rostovskogo soveta narodnogo khozyaystva.  
(Grinding and polishing)

ZAGURSKIY, V.I., kand.tekhn.nauk; PAVLYUCHENKO, (I.L.

High-speed machining of taper keys. Mashinostroitel'  
no.11:34 N '62. (MIRA 15:12)  
(Keys and keyways (Steelwork))  
(Turning)

ZAGURSKIY, V.I., kand. tekhn. nauk

Machining spherical surfaces with cutting tools having rectilinear cutting edges. Mashinostroenie no.1:27-31 Ja-F '62. (MIRA 15:2)

1. Rostovskiy zavod sel'skokhozyaystvennogo mashinostroyeniya.  
(Metal cutting)

S/117/62/000/008/001/005  
1007/1207

AUTHOR: Zagurskiy, V. I., Candidate of Technical Sciences.

TITLE: *Operational control during machining of sleeves*

PERIODICAL: *Mashinostroitel'*, no. 8, 1962, 5

TEXT: The paper contains a detailed description of three different devices designed to ensure automatic operational control and checking of dimensions during machining, in order to reduce idling time of machines during measuring operations, the quantity of rejections, and the number of operators. The first device ensures greater accuracy of dimensions compared with that obtained with other similar attachments. The second device combines automatic control of dimensions with selection of the proper position of the components for any subsequent operation. The third device ensures automatic and periodical control of dimensions after a certain number of parts have left the zone of machining. There are 3 figures.

Card 1/1

ZAGURSKIY, V.I.

Mechanization of the manufacture of fastening parts. Mashinostroitel'  
no.12:10-11 D '61. (MIRA 7/-72)  
(Machine tools---Technological innovations)

ZACHIRSKIY, Vitaliy Ivanovich; ROKHLENKO, M.A., inzh., retsontent;  
NIKIFOROVA, R.A., inzh., red.; GORNOSTAYPOL'SKAYA, M.S.,  
tekhn. red.

[Automated manufacture of threaded fastenings] Avtomatizirovan-  
noe proizvodstvo rez'bovykh krepizhnykh detalei. Moskva, Mashgiz,  
1962. 120 p. (MIRA 15:5)

(Fastenings)

(Automation)

S/121/61/000/004/004/008  
D040/D113

AUTHOR: Zagurskiy, V.I.

TITLE: A substantiation of the isotopic method of wear resistance determination for cutting tools

PERIODICAL: Stanki i instrument, no. 4, 1961, 25-26

TEXT: The essence of the method is discussed with references to several Soviet and English-language publications, and its application is advocated in view of its speed and possible wear measurements on tools such as milling cutters, taps, or broaches. The author proves by reasoning and calculation that the well-known empirical cutting theory formula of relation between speed (v) and tool durability (T)

$$v = \frac{c}{T^m}$$

(2)

also has a physical sense, and that the results of the isotopic and geometrical methods are identical, the radioactivity (A) of the wear products

Card 1/4

S/121/61/000/004/004/008  
D040/D113

A substantiation of the isotopic method ....

being proportional to their mass:

$$M = kA$$

(7)

(where k is the proportionality factor that depends on the specific radioactivity of the tool and on the characteristic of the counter). A formula is deduced for the case of definite radioactivity of the tool metal and constant counter characteristic:

$$\lg \frac{A}{t} = \lg v \operatorname{tg} \alpha$$

(8) ✓

(where t is time, and  $\alpha$  the incline angle in Fig.3), and a graph plotted in logarithmic coordinates (Fig.3). The tangent of the angle  $\alpha$  is  $\frac{1}{m} = \mu$  (where m is the relative durability factor in formula (2)), and  $\operatorname{tg} \alpha$  will give  $\mu$  which is inverse to m. The author points out that the method is a means of speedy determination of economically most advantageous wear resistance of tools at certain selected cutting speed using the NIBTN

Card 2/4

A substantiation of the isotopic method ....

S/121/61/000/004/004/003  
D040/D113

formula:

$$T_{adv} = (\mu - 1) \left( t_{rep} + \frac{S}{a_{op} + a_{mach}} \right) \text{ min.} \quad (10)$$

(where  $t_{rep}$  is time in minutes required for replacement and set-up of tool during its durability period;  $S$  - the cost in kopecks of the tool use during same period;  $a_{op}$  - the basic and additional operator's earnings per minute in kopecks;  $a_{mach}$  - the cost of machine operation per minute in kopecks). There are 3 figures and 7 references: 4 Soviet and 3 non-Soviet-bloc. The two references to English-language publications, in Russian transliteration, read as follows: Guk, R.T., "Machinery" (London), no.88 (256), 1956, p 245-248; Radioactive indicators, "Aircraft Production", no. 17, (5), 1955, pp 170-175.

Card 3/4

S/118/60/000/011/001/014  
A161/A133

AUTHOR: Zagurskiy, V.I., Candidate of Technical Sciences

TITLE: Overall mechanization in the production of threaded fasteners

PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, no. 11, 1960,  
1-5

TEXT: A general review is made of the development in the USSR since 1951. There are now many automatic lines producing screws, bolts and nuts, and their major units are cold heading and thread rolling machines. The economic advantages of thread rolling are stressed. The review is accompanied by brief descriptions of automatic lines at some USSR plants. A line at the "Rostsel'mash" plant (Fig.1) consists of a post with coil (1), a cold upsetting automatic (2), a trimming machine (3), a tumbling drum (4), a thread rolling automatic (5) with flat threading dies, and an anticorrosive-treatment set (6). Bolts are conveyed from machine to machine by chutes (7), inclined conveyers (8), loading hoppers (9) and an elevator (10), and ready bolts travel by the chute (11) into the box (12). The line is worked by one operator and one setter. The hoppers of the trimming and rolling

Card 1/8

Overall mechanization in the production ...

S/118/60/000/011/001/014  
A161/A133

machines are of blade type, produced as individual units with own drive. One line replaces 20 men. At the ZIL plant, bolts are stamped without metal waste on a two-stroke automatic machine, and an automatic line consists of two machines only - a cold heading, and a thread rolling machine. At the "Krasnaya Etna", a line (installed under supervision of A.A.Preobrazhenskiy) produces bolts with ball head and square underhead (Fig.2); it consists of a post (1), a two-stroke cold upsetting automatic (2), a washing machine (3), an annealing set (4) with induction heater (5), a water tub (6), and a thread rolling machine (7), all connected with flexible apron conveyers (8) and chutes (9). The use of four-stroke or five-stroke combination machines (instead of two-stroke machines) is mentioned as promising in giving high effects; thread rolling machines working with two rollers instead of flat dies are mentioned (are used for high-strength bolts). Special or precision bolts are produced by cutting; such lines are placed either in special mechanical shops, or in shops producing the equipment in which the bolts are used. One such line (Fig.3) at the "Serp i Molot" plant in Khar'kov includes an automatic four-spindle lathe (1), machines for rough countersinking (2), drilling and milling (3), finish countersinking (4) and a heat-treatment

Card 2/8

Overall mechanization in the production ...

S/118/60/000/011/001/C14  
A161/A133

hopper (5); three pneumatic lifts (6), an elevator (7), chutes (8) and hoppers (9) connect the machines into line. At many plants the chain elevators and conveyers with metallic buckets used in the beginning are being replaced by more dependable and convenient transportation means requiring no pits and permitting installation of the machines at an angle to one another (which facilitates the work of operators) instead of in one straight line. One such line at "Krasnaya Etna" is shown in diagram (Fig.4). It is recommended to replace the cumbersome chain conveyers by other types - net conveyers with angle iron bars, rake conveyers, vibrational, worm type; to reduce down-time in lines by proper choice of material, the use of sintered carbide tools, loading hoppers between the machines. The advantages of multi-station bolt automatics are stressed - high productivity and little occupied floor space. A typical automatic line producing standard M6-M24 nuts usually consists of one 5-position nut-upsetting automatic and three thread cutting machines, working with curved taps, at a rate of 50-100 nuts a minute (down time not considered). In production of large bolts and nuts separate operations are performed in horizontal forging machines with automatic blank feed by grips, special nuts heading machines. At some large plants electric heading automatics are fitted with built-in electric heating.

Card 3/8

Overall mechanization in the production ...

8/118/60/000/011/001/014  
A161/A133

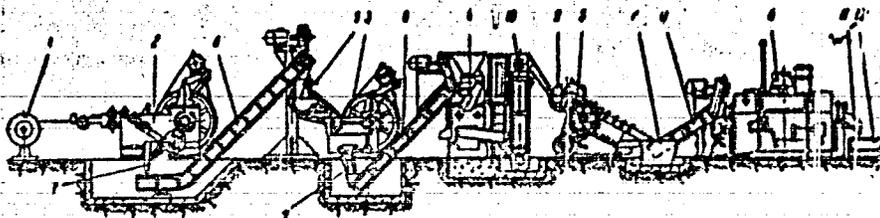
The Special Design Bureau of the Odessa Sovnarkhoz has developed a vertical multi-spindle nut-threading automatic that can cut 20-36 mm thread diameter nuts at a rate of 500 per hour. Some machines include hardness tests by high-speed hydraulic hardness meters with a 10 mm ball. Bolts are moved under the ball on a disc, and 1,200 bolts can be tested per shift. The Avtomobil'nyy zavod im. Likhacheva (Automobile Plant im. Likhachev) has production counters on cold heading and multi-spindle automatic lathes. About one thousand automatic lines and multi-position machines have to be put into service in the USSR during the current Seven-Year Plan. There are 4 figures and 1 table. ✓

Card 4/8

Overall mechanization in the production ...

S/118/60/000/011/001/014  
A161/A133

Fig. 1

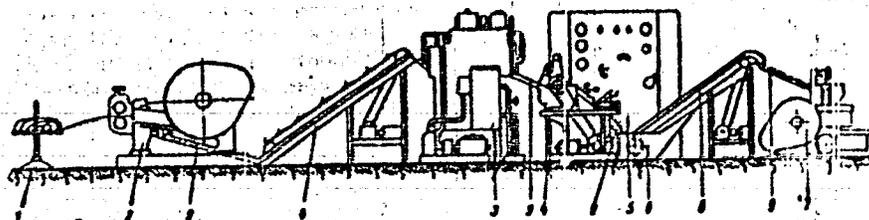


Card 5/8

Overall mechanization in the production ...

S/118/60/000/011/001/014  
A161/A13<sup>2</sup>

Fig. 2

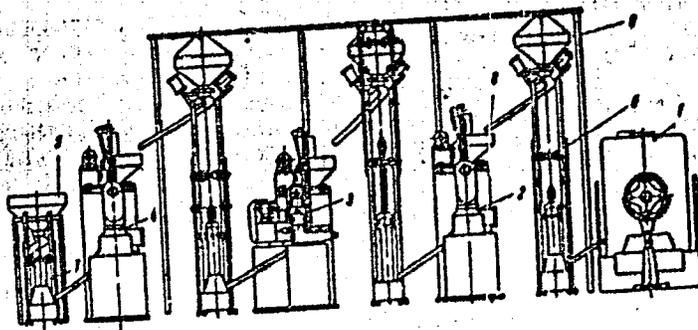


Card 6/8

Overall mechanization in the production ...

S/118/60/000/011/001/014  
A161/A153

Fig. 3

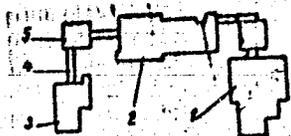


Card 7/8

Overall mechanization in the production ...

S/118/60/000/011/001/014  
A161/A133

Fig. 4



Card 8/8

ZAGURSKIY, V.I.

Cold and hot form rolling of gear wheels. Mashinostroitel' no.12:  
29-30 D '60. (MIRA 13:12)

(Gear shaping machines)

PHASE I BOOK EXPLOITATION

SOV/5187

Zagurskiy, Vitaliy Ivanovich

Progressivnyye sposoby obrabotki rez'by (Advanced Threading Methods)  
Moscow, Mashgiz, 1960. 163 p. 11,000 copies printed.

Reviewer: A. V. Rabotin, Engineer; Ed.: S. P. Shabashov, Candidate  
of Technical Sciences; Tech. Ed.: N. A. Dugina; Executive Ed. of  
Ural-Siberian Department (Mashgiz): A. V. Kaletina, Engineer.

PURPOSE: This book is intended for designers and process engineers.

COVERAGE: The author reviews existing threading methods and describes  
the processes, machines, tools, and automating devices used in  
each method. Data are advanced concerning thread accuracy and  
the areas of application pertinent to each method. Special em-  
phasis is given to a consideration of the economic effectiveness  
of the various threading methods and recommendations are made  
with regard to the choice of the most suitable of these methods.  
The works of E. I. Fel'dshteyn, A. P. Gubin, M. I. Basov, and

Card 1/6

Advanced Threading Methods

SOV/5187

M. I. Pisarevskiy are mentioned as having been used by the author. There are 149 references, all Soviet.

TABLE OF CONTENTS:

Foreword 3

Introduction 5

PART ONE. THREAD CUTTING

Ch. I. Thread Cutting With Single-Point Tools and Chasers 9

Universal thread-cutting methods with single-point tools and chasers 10

Partial automation of thread cutting with a single-point tool 19

Multiple-thread cutting and automation of indexing of starts 25

Automation of threading on universal machines 27

Automatic thread-cutting attachments for automatic and automatic-turret lathes 31

Card ~~2/6~~

S/117/60/000/012/010/022  
A004/A001

AUTHOR: Zagurskiy, V. I.

TITLE: Cold and Hot Rolling of Gears

PERIODICAL: Mashinostroitel', 1960, No. 12, pp. 29-30

TEXT: Comparing thread-cutting and thread rolling operations, the author points out that in the former process 15% of the metal is removed in the form of chips, while thread rolling makes it possible to increase the efficiency of gear working processes by 15 - 20 times. The loss of metal with the latter process amounts only to 3 - 4%. Thread rolling of small-module teeth (up to 1mm) is generally effected by the cold method, while hot rolling or combined hot and cold rolling is used for cylindrical gears with modules in the range of 3 - 10 mm and conical gears of up to 4.5 mm. Moreover, the author points out that thread rolling of gears with modules up to 1 mm is generally carried out by the thrufeed method (with longitudinal feed of the workpiece), while steel gears with modules over 1 mm are rolled by the infeed method (with radial feed of the rolling dies). Gears with a surface finish of the 7th and 8th class according to ГОСТ (GOST) 2789-51 can be obtained if rolling dies with polished working surfaces are used

Card 1/4

S/117/60/000/012/010/022  
A004/A001

Cold and Hot Rolling of Gears

and attention is paid that the axes of revolution of all dies are strictly parallel to the direction of the carriage feed. The radial wobbling of the gear rim including the eccentricity relative to the fitting hole and the noncircularity of shape of the initial teeth periphery will be within the range of the 3rd or even the 2nd class of precision according to GOST 1643-46. It was found that the larger the angle between the gear axis and the direction of the teeth line, the lower the stress taken up by the rolling tool and the higher the quality of the rolled teeth. The author recommends, in order to increase the uniformity of the efficiency of the rolling process, to roll simultaneously two or three blanks on a common mandrel. It was found that by the infeed method on machines with two dies three gears with a module of 1.25 mm with an angle of inclination of the teeth line of  $77^\circ$  are rolled within 15 seconds. Taking into account the auxiliary time, the productivity per hour amounted to 150 parts. Gears with 55 teeth of the same module are machine within 35 seconds, while the machining time for gears with 24 teeth is 20 seconds. The author mentions another cold-rolling process of gears developed in the USA and called Roto-Flow (roto-flo), generally used for the rolling of skew and straight gears on the ends of long shafts and similar components. In the Soviet Union hot-rolling mills designed by TrNIITMASH, ENIMS, Khar'kovskiy traktorny zavod (Khar'kov Tractor Plant) and Ryazanskiy stanko-

Card 2/4

8/117/60/000/012/010/022  
A004/A001

Cold and Hot Rolling of Gears

stroitel'nyy zavod (Ryazan' Machine Tool Plant) are used. Flat blanks and blanks with hybs are generally used. Flat blanks are rolled with longitudinal ( $m = 4$  mm) and radial ( $m = 4-10$ mm) feed, while blanks with hubs are only rolled by the infeed method. Figure 2 shows the kinematic layout of a machine for the rolling of teeth with a module of 6.5 - 10.5 mm.

Figure 2:

1 - blank; 2 - rolling dies; 3 - carriage; 4 - electric motor; 5 - reducer; 6 - electric motor; 7 - spindle; The radial feed magnitude of gear-rolling dies depends on the module; for module 3, e. g., the feed amounts to 0.1 - 0.5 mm/sec., for module 4 it is 0.2 - 0.5 mm/sec., etc. The Ryazan' Machine Tool

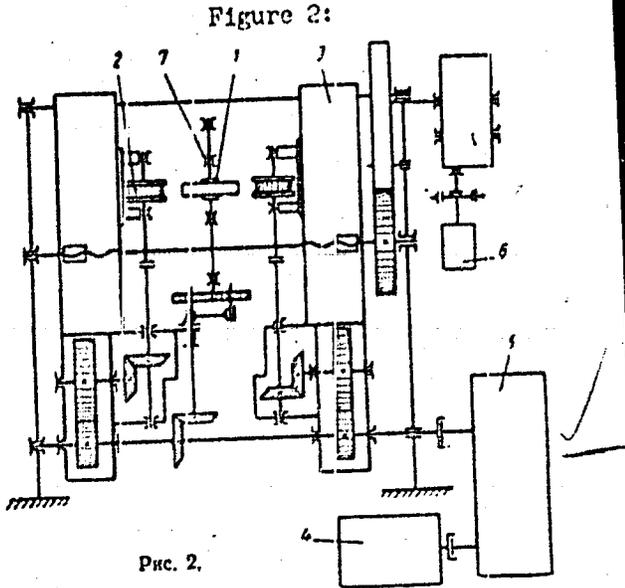


Рис. 2.

Card 3/4

Cold and Hot Rolling of Gears

S/117/60/000/012/010/022  
A004/A001

Plant has mastered the production of the OC-1 (OS-1) gear-rolling machine for the manufacture of gears 40 - 250 mm in diameter with modules up to 5mm. Such a machine replaces more than 10 gear-cutting machines. The piece-time for one part amounts to 1.5 - 2 minutes only. The resistance to wear of hot-rolled gear teeth is by 1.5 times higher and the fatigue strength by 10% higher than the corresponding values of milled gears. The Khar'kov Tractor Plant used for the first time a combined method of hot and cold gear rolling. This method reduces the machining time of gears by 5 times. Manufacturing costs for gears 200 - 250 in diameter with modules of 5 mm were reduced by 20%. The mass production of gears by this method warrants a high precision (of the 2nd class for 99% of the rolled gears). Bevel gears, the rolling of which was mastered between 1955-1958, are manufactured with modules up to 4.5 mm and maximum diameters of 200 mm. It takes only 2 minutes to generate such teeth. There are 2 figures.

Card 4/4

ZAGURSKIY, V. I. kand. tekhn. nauk

Over-all automation in the manufacture of screw fastenings. Mekh. i  
avtom. proizv. 14 no. 11:1-5 N '60, (MIR 13:11)  
(Automation) (Bolts and nuts)

ZAGURSKIY, Vitaliy Ivanovich; RABOTIN, A.V., inzh., rotsenzent;  
SHARASHOV, S.P., kand.tekhn.nauk, red.; DUCHINA, N.A.,  
tekhn.red.

[Advanced methods for shaping screw threads] Progressivnye  
sposoby obrabotki rez'by. Moskva, Gos.nauchno-tekhn.izd-vo  
mashinostroit.lit-ry, 1960. 163 p. (MIRA 14:2)  
(Screw cutting)

ZAGURSKIY, Y.I.

Improving the manufacture of fastening parts. Mashinostroitel'  
no.8:8-9 Ag '60. (MIRA 13:9)  
(Machinery industry--Technological innovations)  
(Automatic control)

ZAGURSKIY, V. I. Cand Tech Sci -- (diss) "Study of the process of <sup>the</sup> knurling  
of external threads with longitudinal feeding." Mos, Publishing House of the  
Acad Sci USSR, 1959. 22 pp (Acad Sci USSR. Inst of Machine <sup>Science</sup> ~~Engineering~~ Studies).  
175 copies (KL, 43-59, 124)

ZAGURULKO, L. T., LEBEDINKIY, A. V., DIONIKOV, J. M. and TETSAYEV, Zh. P.

"The Effect of Physical Effort on the Dark-Adaptation of the Eye", Fiziolog.  
Zhurnal SSSR, Vol. 16, 5th ed., 1933.

ЗАГОЛОВОК. С.1.

Functional dynamics of the hist substance in the receptor neurons of  
the crayfish. *tsitologiya* no.6:741-743 H-D '64.

(MIRA 18:8)

10 Kafedra fiziologii cheloveka i zhivotnykh Rostovskogo universiteta.

KOGAN, A.B.; ZAGUSKIN, S.L.

Relationship between ribonucleic acid dynamics and electrical activity of the single stretch neuron of the crayfish muscle during excitation and inhibition. Zhur. evol. biokhim. i fiziol. 1 no.1:59-66 Ja-F '65. (MIRA 18:6)

1. Kafedra fiziologii cheloveka i zhivotnykh Rostovskogo universiteta.

ZAGUSKIN, S.I.

Dynamics of ribonucleic acid in the receptor neuron of the crayfish during excitation and inhibition. Nauch.dokl.vys.shkoly; biol.nauki no.3:36-39 '65. (MIRA 18:8)

1. Rekomendovana kafedroy fiziologii cheloveka i zivotnykh Rostovskogo gosudarstvennogo universiteta.

L 27633-66

ACC. NR. AP601812h (A, H) SOURCE CODE: UR/0325/65/00/003/003/0039

AUTHOR: Zaguskina, S. L.

-5  
E

ORG: Department of Human and Animal Physiology, Rostov State University (Kafedra fiziologii cheloveka i zhivotnykh Rostovskogo gosudarstvennogo universiteta)

TITLE: RNA dynamics in the receptor neuron of the crab during excitation and suppression  
22

SOURCE: Nauchnyye doklady vysshey shkoly. Biologicheskkiye nauki, no. 3, 1965, 36-39

TOPIC TAGS: RNA, neuron, electrophysiology

ABSTRACT: Combined electrophysiological and histochemical methods were used to investigate RNA dynamics in a single receptor neuron of a crab. An electric stimulus was applied in five variants: low-strength, medium-strength, high-strength, repeated excitation, and suppression. With low-strength stimulation the muscles stretched 10-20% of their length. Both 5 minute and 20-minute stimulation resulted in a moderate increase in the amount of RNA and the size of the neuron body. There was practically no change in RNA concentration. With a medium stimulus the muscles stretched 40-60% of their length. There was a considerable increase in the size of the neuron body and the amount of RNA. RNA concentration was higher than in the control. The strong stimulus resulted in a certain increase in the

Card 1/2

L 27633-66

ACC NR: AF6018424

size of the neuron body and a reduction in RNA concentration. The amount of RNA decreased in re-stimulated receptors. Excitation resulting in suppression led to a sharp rise in RNA concentration. The size of the neuron body decreased. The experiments show that changes can take place in the total amount of RNA without any essential change in its concentration. Orig. art. has: 1 table. [JFRS]

SUB CODE: 06 / SUBM DATE: 23May64 / ORIG REF: 009 / OTH REF: 005

Card 2/2 CC

ZAGUSKIN, Vladimir L'vovich; LOPSHITS, A.M., red.; VARPAKHOVSKIY, F.L.,  
red.; MURASHOVA, M.Ya., tekhn.red.

[Handbook of numerical methods for solving algebraic and  
transcendental equations] Spravochnik po chislennym metodam  
resheniya algebraicheskikh i transtsendentnykh uravnenii.  
Pod red. A.M.Lopshitsa. Moskva, Gos.isd-vo fiziko-matem.  
lit-ry, 1960. 216 p. (MIRA 13:4)  
(Equations--Numerical solutions)

ZAGUSKIN, V.L.

Surfaces which can be transferred into themselves by affine transformation. Izv. vys. ucheb. zav.; mat. no.2:96-103 '60.  
(MIRA 13:7)

1. Yaroslavskiy pedagogicheskiy institut im. K.D. Ushinsirogo.  
(Surfaces)

10

16(1)

AUTHOR:

Zaguskin, V.L.

SOV/155-58-3-10/37

TITLE:

On a Kind of Finsler Spaces and Motions in the Minkowski Space  
(Ob odnom vide prostranstv Finslera i dvizheniyakh v prostranstve  
Minkovskogo)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Fiziko-matematicheskiye nauki,  
1958, Nr 3, pp 50-52 (USSR)

ABSTRACT:

According to the papers of V.V.Vagner [Ref 1,2] the geometry  
of Finsler spaces is investigated on the base of the Minkowski  
geometry. The author formulates 14 theorems without proof, e.g.:  
Theorem: In a rigid affine Finsler space the connection is  
determined uniquely and it has a zero curvature.  
Theorem: A Berwald space (see [Ref 2]) is an affine Finsler  
space.  
Theorem: The direct product of Berwald spaces is a Berwald space  
again.  
An affine Finsler space is a Finsler space in which all local

Card 1/2

On a Kind of Finsler Spaces and Motions in the  
Minkowski Space

SOV/155-53-3-10/37

Minkowski spaces are isometric. A Finsler space is rigid if at least in one Minkowski tangential space the rotation group is finite.

There are 5 references, 2 of which are Soviet, 1 American, 1 Swiss, and 1 German.

ASSOCIATION: Yaroslavskiy gosudarstvennyy pedagogicheskiy institut imeni K.D.Ushinskogo (Yaroslavl' State Pedagogical Institute imeni K.D.Ushinskiy)

SUBMITTED: April 15, 1958

Card 2/2

ZAGUSKIN, V.L.

Solution of systems of linear equations by the iterative  
methods of L.V. Kantorovich and A.M. Lopshits. Uch. zap.  
IAr. gos. ped. inst. no.34:69-80 '60. (MIRA 15:9)  
(Linear equations)

ZAGUSKIN, V.L.; MOSKVITINA, I.I.

Convergence of N.V.Paluver's method of polynomial factorization.  
Dokl. na nauch. konf. 1 no.3:68-71 '62. (MIRA 16:8)  
(Factors (Algebra))

ZAGUSKIN, V.L.

Some problems in Finsler geometry. Uch. zap. IAr. gos. ped.  
inst. no.34:83-110 '60. (MIRA 15:9)  
(Geometry, Differential)

ZAGUSKIN, V. L. Cand Phys-Math Sci -- "Certain problems of Finsler's geometry."  
Saratov, 1961 (Saratov State Univ im N. G. Chernyshevskiy). (KL, 4-61, 183)

ZAGUSKIN, V.I.

One kind of Finsler spaces and motions in the Minkowski space.  
Nauch.dokl.vys.shkoly: fiz.-mat.nauki no.3:50-52 '58.

(HIRA 12:7)

1. Yaroslavskiy gosudarstvennyy pedagogicheskiy institut im. K.D.  
Ushinskogo.

(Spaces, Generalized)

ZAGUSKIN, V.L.

Inscribed and circumscribed ellipsoids of extreme volume. *Isp.mat.*  
nauk 13 no.6:89-93 H-D '58. (ICIRA 12:2)  
(Ellipsoid)

AUTHOR: Zaguskin, V.L. SOV/42-13-6-9/33  
TITLE: On ~~Circumscribed~~ and Inscribed Ellipsoids of Extremal Volume  
(Ob opisannykh i vpisannykh ellipsoidakh ekstremal'nogo  
ob'yema)  
PERIODICAL: Uspekhi matematicheskikh nauk, 1958, Vol 13, Nr 6, pp 89-93 (USSE)  
ABSTRACT: The author's results are surpassed by the paper of Danzer  
[Ref 1].  
There are 6 references, 4 of which are German, 1 Swiss and  
1 American.  
SUBMITTED: July 4, 1957

Card 1/1

YEFREMOVICH, V.A. (Moskva); LEVIN, V.I. (Moskva); MARKHASEV, G. (Klyaz'ma);  
ONOFRASH, Ye. [Onofras, E.] (Yassy, Rumyniya); RYBAKOV, L.M. (Yaroslavl');  
ZAGUSKIN, V.L. (Yaroslavl')

Brief notes. Mat. pros. no. 6:255-265 '61. (MIRA 15:3)  
(Mathematics--Problems, Exercises, Etc.)

L 12741-63

HDS/EXT(d)/FCC(w)

AFETC

IJP(C)

S/202/63/003/002/000/001

54  
20

AUTHOR: Zaguskin, V. L. and Kharitonov, A. V. (Moscow)

TITLE: Solution of the stability problem by iteration

PERIODICAL: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 3,  
no. 2, 1963, 361-364

TEXT: The direct Runge-Kutta method for studies of the stability of dif-  
ferential equations with constant coefficients sometimes requires a large  
number of iterations. It is shown that the number of iterations can be  
reduced by using the method of successive approximations.

TEXT: The stability of the Runge-Kutta method is studied. It is shown that  
the stability of the method is determined by the eigenvalues of the matrix  
of the method. The stability of the method is studied for various values  
of the parameters of the method.

TEXT: The number of iterations does not depend on the power of the polynomial.

Card 1/2

L 12741-63

S/208/63/003/002/001 014

of the initial polynomial, in particular of those close to the imaginary axis. After some discussions of the case of polynomials with real coefficients, the numbers

SUBMITTED: April 5, 1962

Card 2/2

L 00383-66 EWT(1)/EWP(m)/FCB(k)/ETC(m)/EMA(1) WW

ACCESSION NR: AP502269

UR/0020/65/168,005/1107/1109

AUTHORS: Zaguskin, V. L.; Kondrashov, V. Ye. 21.04.65 46 B

TITLE: Calculation of heat conduction and gas dynamics equations by missing along isolated regions

SOURCE: AN SSSR. Doklady, v. 163, no. 5, 1965, 1107-1109

TOPIC TAGS: heat conduction, gas dynamics, difference equation, boundary condition, stability criterion

ABSTRACT: The solutions of the heat conduction and gas dynamics equations using difference equations are discussed. The heat conduction equation is given by

$$\frac{\partial u}{\partial t} = a \frac{\partial^2 u}{\partial x^2}; \quad a = \begin{cases} a_1, & \text{if } x < 0, \\ a_2, & \text{if } x > 0. \end{cases}$$

subject to boundary conditions

$$\alpha_1 u + \beta_1 \frac{\partial u}{\partial x} = 0 \quad (x = -l_1); \quad \alpha_2 u + \beta_2 \frac{\partial u}{\partial x} = 0 \quad (x = l_2).$$
$$u_{-1} = u_{+0}; \quad a_1 \frac{\partial u}{\partial x} \Big|_{x=0} = a_2 \frac{\partial u}{\partial x} \Big|_{x=0}.$$

These equations are written in difference form and the following two necessary conditions are derived for stability of the solution

$$a_1/h_1 > a_2/h_2 \quad (c \rightarrow 0)$$

Card 1/2

L 00383-66

ACCESSION NR: AF5021269

$$s_1 \geq s_2 \quad (\sigma \rightarrow \infty).$$

The gas dynamics equations are expressed by

$$\partial u / \partial t + u \partial p / \partial x = 0,$$

$$\partial v / \partial t - u \partial u / \partial x = 0, \quad p = A v^{-\gamma}.$$

The corresponding necessary conditions for stability are given by

$$\frac{s_1}{\gamma_1} \frac{h_1}{\tau_1} < \frac{s_2}{\gamma_2} \frac{h_2}{\tau_2} \quad \left( s \frac{\tau}{h} \rightarrow 0 \right);$$

$$\frac{s_1}{\gamma_1} < \frac{s_2}{\gamma_2}, \quad s = \sqrt{\gamma p v} \quad \left( s \frac{\tau}{h} \rightarrow \infty \right).$$

This second condition becomes almost a sufficient condition if  $s(\tau/h) \ll 1$ . Orig. art. has: 15 equations.

ASSOCIATION: none

SUBMITTED: 01Dec64

ENCL: 00

SUB CODE: MA, ME

NO REF SOV: 003

OTHER: 000

Card <sup>29</sup> 2/2

ZAGUSKIN, V.L. (Moskva); KHARITONOV, A.V. (Moskva)

Iteration method for solving the stability equation. Zhur.  
vych.mat.i mat.fiz. 3 no.2:361-364 Mr-Apr '63. (MIRA 16:4)  
(Algol (Computer program language))

DOLGINOV, L.S., insh.; ZAGUSTIN, S.N., insh.

Electric furnace used for heating pipes in fitting them for  
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ACC NR: AP6012239

SOURCE CODE: UR/0129/66/000/000/0075/0078

AUTHORS: Yurgenson, A. A.; Zagvardina, Ye. V.ORG: Turbine Engine Works (Turbomotornyy zavod)TITLE: Multiple nitriding of 1Kh13 steelSOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 4, 1966, 75-78

TOPIC TAGS: chromium steel, nitridation, x ray photography, x ray equipment, ammonia, phase composition/ 1Kh13 chromium steel, RKD x ray equipment

ABSTRACT: Specimens of 1Kh13 steel were nitrided in industrial furnaces under the following conditions: heating at 540C for 12 hrs; ammonia dissociation to 35%; heating at 540C for 48 hrs; ammonia dissociation to 65%; cooling under ammonia stream to 200C; air cooling. This process was repeated. X-ray photographs were taken with a RKD camera. In multiple nitriding of high-chrome steel, the surface layers were decarbonized; iron nitrides reacted with atmospheric oxygen and formed iron oxides. Chrome steel which has been nitrided nine times contains iron oxides and nitrides on the surface; phases containing chromium are absent. Excessive and repeated nitriding impairs the quality of the nitrided layer of high-chrome steels. Orig. art. has: 2 figures and 2 tables.

SUB CODE: 11/

SUBM DATE: none/

ORIG REF: 003

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UNC: 621.785, 531667, 14, 018, 25

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438.35 METALLURGICAL LITERATURE CLASSIFICATION

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ABSTRACT METALLURGICAL LITERATURE CLASSIFICATION

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