M-5

USSR / Cultivated Plants. Forage Crops.

Abs Jour: Ref Zhur-Biol., 1958, No 10, 73001.

Author : Stel'makhovs'kiy, A. F.
Inst : Not Given.
Title : How to Grow High Harvests of Perennial Grasses.

Orig Pub: Byul. sil's'kogospod. inform. Zhitom. obl. vid. t-va dlya poshir. polit. ta nauk. znan', 1957, No 3, 68-71.

Abstract: According to data of the Novgorod-Volynskiy variety test plot, on turf-podzolic soils of Zhitomirskaya Oblast a crop of red clover in a mixture with Timothy grass is the most successful of all. For the forest-steppe rayons of the Oblast - a grass mixture of clover and lucerne with timothy grass, meadow fescue or tall oatgrass. Clover gives a hay harvest of about 41 c, and mixtures with timo-

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M-3

USSR / Cultivated Plants. Forage Crops.

Abs Jour: Ref Zhur-Biol., 1958, No 15, 73001.

Abstract: thy 84 c/ha. Best results are given with a two-year use of the fields under perennial grasses. After grass mixtures, harvest of flax and other agricultural crops is increased significantly. With the application of fertilizers and lime, the harvest yield of grasses is increased 1-1/2 - 2 fold. -- M. K. Deulina.

Card 2/2 70

137-1958-3-5052

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 85 (USSR)

AUTHOR: Stel'makov, S. M.

TITLE: Progressive Forging Technology Based on Consolidated Plant Experience (Mezhzavodskaya peredovaya tekhnologiya kovki)

PERIODICAL: V sb.: Kuznechno-shtampovochn. proiz-vo. Leningrad, Lenizdat, 1957, pp 73-77

ABSTRACT: Consolidated operational experience of a coordinated skilled crew was utilized in the process of rationalizing the production in press-forging shops. Novel technological processes ensuring high production indices were developed and adapted, comprising: drop-hammer production of ring-shaped forgings, flanges, crane hooks, etc.

P. S.

Card 1/1

GINZBURG, Zalman Moiseyevich; STEL'MAKOV, Sergey Mikhaylovich; BANGE, B.O., inzh., retsenzent; PAVLOVICH, P.M., inzh., retsenzent; KAMNEV, P.V., dotsent, kand.tekhn.nauk, obshchiy red.; ATROSHENKO, A.P., dotsent, kand.tekhn.nauk, red.; BORODULINA, I.A., red.izd-va; SPERANSKAYA, O.V., tekhn.red.

[Modernizing the press-forging equipment and dies used in forge shops] Modernizatsiia kuznechno-pressovogo oborudovaniia i shtampovoe khoziaistvo kuznechnykh tsekhov. Pod obshchei red. P.V.Kameneva. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1958. 66 p. (Bibliotechka kuznetsa-novatora, no.8) (MIRA 12:12)

(Forge shops--Equipment and supplies)

STEL'MAKOV, S.M.

3(1, 5) PURPOSE I BOOK EXPLOITATION SOV/3373

Ginzburg, Zalman Moiseyevich, and Sergey Mikhaylovich Stel'makov

Modernizatsiya kuznechno-pressovogo oborudovaniya i shtampovoye khozyaystvo kuznechnykh tsekhov (Modernization of Forging and Press Equipment and Die Handling in Forging Shops) Moscow, Mashgiz, 1958. 68 p. (Series: Bibliotechka kuznetsa-novatora vyp. 8) 7,500 copies printed.

General Ed.: P. V. Kamnev, Candidate of Technical Sciences, Docent; Reviewers: B. O. Bange, Engineer, and P. M. Pavlovich, Engineer; Ed.: A. P. Atroshenko, Candidate of Technical Sciences, Docent; Ed. of Publishing House: I. A. Borodulina; Tech. Ed.: O. V. Speranskaya; Managing Ed. for Literature on Machine-building Technology (Leningrad Division, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This booklet is intended for forge-shop workers. It may also be useful to technical personnel in forge shops and to students in secondary schools and schools of higher technical education.

Card 1/3

COVERAGE: The booklet gives an account of progressive methods for modernizing forgin equipment and for organizing the production, use, and maintenance of dies. Repair of equipment and the production and use of dies are described in detail. No personalities are mentioned. There are 19 references, all Soviet.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress [redacted]

VK/lsb
3-21-60

LYASHENKO, Semen Vlasovich, inzh.; STEL'MAKOV, S.M., inzh., red.; SHILLING, V.A., izd.red.; GVIRTS, V.L., tekhn.red.

[Use of dies with dished-spring shock absorbers for trimming presses; Minsk Tractor Plant practices] Primenenie shtampov s amortizatorami iz tarel'chatykh pruzhin dlia obreznykh pressov; opyt Minskogo traktornogo zavoda. Leningrad, 1960. 11 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Kovka i goriachaia shtampovka, no.5). (MIRA 14:6)

(Forging machinery) (Minsk—Tractor industry)

VOLIK, Yuriy Prokof'yevich; YERMOLAYEV, Yevgeniy Nikolayevich; CHESNOKOV, Viktor Kuz'mich; STEL'MAKOV, S.M., red.; FREGER, D.P., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Ejecting device for forging on crankshaft presses: stenographic record of a lecture course]Vytalkivaiushchie ustroistva pri shtampovke na krivoshipnykh goriacheshtampovochnykh pressakh; stenogramma lektsii. Leningrad, 1962. 26 p. (MIRA 15:8)

(Forging) (Power presses)

KRASIL'SHCHIK, Nison Leyzerovich; STEL'MAKOV, S.M., red.; TELYASHOV, M.Kh., red.izd-va; BELOGUROVA, I.A., tekhn. red.

[Group method of metalworking in forging practices] Gruppovoi metod obrabotki v kuznechno-shtampovochnom proizvodstve. Leningrad, 1963. 23 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Goriachaia i kholodnaia obrabotka metallov davleniem, no.4)
(MIRA 17:3)

MEDVINSKIY, Veniamin Grigor'yevich; STEL'MAKOV, S.M., red.;
FREGER, D.P., red.izd-va; GVIRTS, V.L., tekhn. red.

[Technology of the production of rotor shafts] Tekhnologiia proizvodstva rotornykh valov. Leningrad, 1963. 30 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Goriachaia i kholodnaia obrabotka metallov davleniem, no.6) (MIRA 17:3)

ATROSHENKO, A.P.; STEL'MAKOV, S.M., inzh., retsenzent

[Mechanization and automation of drop forging] Mekhanizatsiia i avtomatizatsiia goriachei shtampovki. Moskva, Mashinostroenie, 1965. 227 p. (MIRA 18:4)

S/193/60/000/009/004/013
A004/A001

AUTHOR: Stel'man, L.N.

TITLE: The 6610 Plano-Milling Machine

PERIODICAL: Byulleten' tekhniko-ekonomicheskoi informatsii, 1960, No. 9, pp. 22-25

TEXT: In 1959 the Minskiy stankostroitel'nyy zavod im. K.Ye.Voroshilova (Minsk Machine Tool Plant im. K.Ye. Voroshilov) designed and mastered the manufacture of the 6610 plano-milling machine which is designated for the surface machining of cast iron, steel, non-ferrous metal and plastic parts in individual or small-series production. The milling machine has been mainly designed for operations with carbide-tipped cutters and possesses a wide range of speeds and feeds, and its power and rigidity make it possible to use carbide cutters also for power and speed cutting with the four milling heads. The 6610 plano-milling machine has the unified bed, stands, cross-beam, cross-arm and other units, combined with these parts, of the 7212 parallel-planing machine. The author maintains that this model is equal to the best designs of foreign firms and possesses a number of advantages in comparison with other machines manufactured hitherto

Card 1/3

The 6610 Plano-Milling Machine

in the Soviet Union. Owing to the increased power and decrease in the auxiliary time necessary for the machining of components, the efficiency of the milling machine could be increased. The Plant is able to supply 6610 milling machines with a speed range of 40 - 1,250 rpm. The largest rated milling cutter diameter amounts to 400 mm. The feed ranges of the table (20 - 2,000 mm/min) and milling head (20 - 1,250 mm/min) were increased, while a model with reduced feed ranges (10 - 1,000 mm/min) can be delivered for the machining of blanks of high-alloyed steel. If a motor of the P-series is used, the traveling speed of the table is 4,000 mm/min while that of the milling head amounts to 2,000 mm/min. At small feeds, the drive of the table develops a tractive force corresponding to a cutting force of 9,000 kg. Table and milling head feeds can be controlled steplessly over the whole range. The cross-beam is pressed automatically against the stand guides, while the milling head carriages are automatically pressed against the cross-beam and stands. A special hydraulic device removes the cutter by 1 mm from the component when the table and milling head travel are reversed and returns it to the spot with an accuracy of 0.01 - 0.02 mm. The evenness and sensitivity of travel of the working organs ensure a high operating accuracy. Thus, if the table is loaded with a machine part weighing 8,000 kg, the leaps it produces during travel are less than 0.01 mm. A surface finish of ▽ 7 - ▽ 8

The 6610 Plano-Milling Machine

S/193/60/000/009/004/013
A004/A001

and a planeness of 0.03 mm over 1 m can be attained on the machine. Almost all the bearings of the milling machine are of the antifriction type. The following technical data are given: Largest dimensions of component to be machined (width x height) = 1,000 x 1,000 mm; top weight = 8,000 kg; table dimensions (width x length) = 1,000 x 4,000 mm, range of cutter speed of rotation (16 steps) = 25-800 rpm; overall dimensions (height x width x length) = 4,075 x 4,360 x 10,390 mm, weight = 39,850 kg. There is one figure.

Card 3/3

21929

S/193/61/000/004/005/007
A004/A101

1.1100

AUTHOR: Stel'man, L. N.

TITLE: Model 6608 plano-milling machine

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 4, 1961, 33 - 35

TEXT: The multi-purpose 6608 plano-milling machine is mainly intended for the machining of various kinds of plane surfaces on body parts with the aid of end cutters in piece and small-batch production. Besides, parts can be machined with cylindrical, end, disk and profile cutters (sintered carbide or high-speed steel) and also with an assembly of cylindrical cutters on a horizontal arbor. The machine has three milling heads. The parts being machined are fixed on the table carrying out longitudinal movements, while the cutters are clamped on the spindle of one or several milling heads which can be displaced in transverse direction. For the milling of parts of different height the cross arm can be displaced in vertical direction. Each milling head is driven by an individual 14 kw asynchronous electromotor. The milling spindles have 16 different speeds. The table and milling head feed drive is effected according to the generator-motor system using an amplidyne as generator. The speed regulation range is

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Model 6608 plano-milling machine

1:100. For the machining of high-alloyed steel parts the milling machine can be delivered with a reduced feed range down to 10 mm/min. The machine has a centralized distance control operated from a suspension panel. Compared to milling machines of old design with 34 handles, the new 6608 model has only two for the manual displacement of the tail stock and the changing of milling head speeds. The feed of the table and milling heads is steplessly regulated. The machine has a mechanism for the automatic retraction of the cutter 1 mm from the part being machined during the reversing of the table or milling heads and for the automatic return of the cutter to the initial position with an accuracy of up to 0.01 -0.02 mm. Compared to similar machines of old design the rigidity of the new 6608 milling machine in longitudinal direction is 1.4 times, in transverse direction 1.7 times and in vertical direction 2.4 times higher. The clearances in the table and milling head carriage bedways are automatically selected during the travel towards the direction of the acting cutting stresses. The machine table loaded with a 6,000 kg part can be displaced by less than 0.01 mm. The setting accuracy of the table and milling heads actuated by the push buttons at the minimum speed attains 0.03 - 0.05 mm. The following technical specifications are given: table working area (width x length) - 800 - 3,000 mm; maximum table travel - 3,550 mm; maximum portal clearance - 1,020 x 900 mm; maximum weight of part being machined - 6,000 kg milling head angle of rotation in both

Model 6608 plano-milling machine

directions - $\pm$ 30°; maximum tail spindle stroke - 200 mm; range of cutter speeds - 25 - 800 rpm; range of table feeds - 20 - 2,000 mm/min; range of milling head feeds - 20 - 1,250 mm/min; overall dimensions (length x width x height) - 8,060 x 4,100 x 3,230 mm; weight - 31,000 kg. The 6608 plano-milling machine belongs to the range of mutually standardized plano-milling machines, parallel-planing machines and parallel grinding machines which are being fabricated by the Minskiy stankozavod im. Voroshilova (Minsk Machine-Tool Plant imeni Voroshilov) under the current Seven-Year Plan. There is 1 figure.

Card 3/3

STEL'MAN, L.N.

The 6610FR plano-milling machine with milling and boring heads. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. no.1:33-35 '63. (MIRA 16:2)
(Milling machines)

KOPEYKIN, L.M.; SHTEL'MAKHOV, M.S.; GEYLER, Z.Sh.; TSYPUL'NIKOV, I.M.; SHIFFER, M.L.; PELIKS, A.Ya.; BRONSHTEYN, V.S.; BERESNEV, V.A.; KUZAKHMETOV, Sh.G.; STARKOV, V.T.; VARAKSA, A.P.; ZHELEZNYAKOV, V.V.; STEL'MAN, L.N.; SUKHANOV, V.B.

Authors' certificates and patents. Mashinostroenie no.6:101-102 N-D '65. (MIRA 18:12)

ACCESSION NR: AT4012717 S/2981/63/000/002/0087/0089

AUTHOR: Vlasova, P. T.; Matveyev, B. I.; Kishnev, P.V.; Stel'mashchuk, V. A.; Anan'in, S. N.

TITLE: Manufacturing technology and properties of SAP foil

SOURCE: Alyuminiyevyye splavy. Sbornik statey, no. 2. Spechennyye splavy. Moscow, 1963, 87-89

TOPIC TAGS: aluminum alloy, sintered aluminum, aluminum powder, sintered aluminum powder, SAP, aluminum foil, SAP foil, aluminum rolling, aluminum tempering

ABSTRACT: It was found that SAP with 6-7% Al_2O_3 is best for the manufacture of a quality SAP foil. Sheets 240 x 30 mm were obtained from Al powder in a hot briquetting process with subsequent roasting and hot pressing. After exposure to 500 C for one hour, 30-mm sheets were reduced to 5 mm in a 3- or 4-high mill, exposed again to 500 C for 30 minutes, rolled to 2.5 mm, and roasted at 350 C for 2 hours. Further processing consisted of cold rolling to 0.5 mm in a 2-high mill, cutting, roasting at 350 C for 2 hours, and cold rolling to 0.05 mm in a 6-high mill. X-ray

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ACCESSION NR: AT4012717

examination showed no evidence of recrystallization at 500 C, and no appreciable microstructural change could be established with a microscope (x 500). It was concluded that prolonged tempering of the foil at 400 C very insignificantly reduces the ultimate strength, while tempering at 500 C for 250 hours reduces it by 4-5 kg/mm^2 at room temperature. Al_2O_3 contents of 9-10% produced high-mechanical properties, but the resulting material was difficult to deform. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: none

SUBMITTED: 00	DATE ACQ: 13Feb64	ENCL: 00	
SUB CODE: ML	NO REF SOV: 000	OTHER: 000	

Card 2/2

STEL'MASHCHUK, Viktor Fomich; KHOLOD, S., red.; POPOVA, T., tekhn.red.

[Utilizing commodity-monetary relations for building socialism in the U.S.S.R.] Ispol'zovanie tovarno-denezhnykh otnoshenii dlia postroeniia sotsializma v SSSR. Moskva, Gos.izd-vo polit. lit-ry, 1960. 190 p. (MIRA 13:3)
(Economics)

ARUSTAMOV, L.; SMIRNOV, V.; VAGINA, I.; STEL'MASHCHUK, Ye.

New spark plugs. Za rul. 19 no.10:26-27 O '61. (MIRA 14:11)

1. Nauchno-issledovatel'skiy eksperimental'nyy institut avtotraktornogo elektrooborudovaniya i priborov.
(Spark plugs)

ACC NR: AP7005555 SOURCE CODE: UR/0108/67/022/001/0068/0074

AUTHOR: Filonenko, V. A. (Active member); Yemel'yanov, V. Ye. (Active member); Stel'mashenko (Active member)

ORG: Scientific Technical Society of Radio Engineering and Electronics (Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elekroniki)

TITLE: Errors in determining the bearing by means of instantaneous amplitude comparison of signals in systems with elliptically polarized antennas

SOURCE: Radiotekhnika, v. 22, no. 1, 1967, 68-74

TOPIC TAGS: direction finding, direction instrument, helical antenna, pulse signal, pulse amplitude

ABSTRACT: The authors consider an error which may occur in determining the bearing of a source with unknown radiation polarization when the method of instantaneous amplitude comparison of signals is employed. A formula is derived for computing the bearing characteristics of antennas with elliptical polarization. Some computation results for the case of regular helical antennas are given. It was concluded that the bearing characteristics of a system which is used to develop split bearing indication of regular helical antennas with helixes wound in the same direction vary when the ellipticity factor changes and during variations of the ellipse of the incident field. When the bearing of an object is determined using the method of the instantaneous amplitude comparison of signals in respect to the bearing characteristic of the orientation of the incident field is unknown, the result may be incorrect. If the helixes are wound in opposite directions it is impossible to determine

Card 1/2 UDC: 621.396.982

ACC NR: AP7005555

the bearing of the object. [GS]

SUB CODE: 09/ SUBM DATE: 20Jan64/ OTH REF: 001/

Card 2/2

STEL'MASHENKO, M.B.

Improving separate units of the TGM1 diesel locomotive.
Elek.i tepl.tiaga 14 no.3:19-20 Mr '60. (MIRA 13:7)

1. Master depo Podmoskovnaya.
(Diesel locomotives)

STEL'MASHENKO, D.I.

Characteristics of quasi-sinusoidal pulses in the interference zone. Dop. AN URSR no.11:1481-1485 '62. (MIRA 18:1)

1. L'vovskiy filial Instituta geofiziki AN UkrSSR.
Predstavleno akademikom AN UkrSSR S.I. Subbotinym.

ACC NR: AP6033833 SOURCE CODE: UR/0139/66/000/005/0013/0018

AUTHOR: Stel'mashenko, M. A.; Seleznev, V. N.

ORG: Siberian Physicotechnical Institute im. V. D. Kuznetsov (Sibirskiy fiziko-tekhnicheskiy institut im. V. D. Kuznetsova)

TITLE: Temperature dependence of constants of magnetic crystallographic anisotropy of single crystals of lithium and lithium cobalt ferrites

SOURCE: IVUZ. Fizika, no. 5, 1966, 13-18

TOPIC TAGS: temperature dependence, magnetic anisotropy, single crystal, lithium, cobalt ferrite, anisotropy, anisotropy constant

ABSTRACT: Results are presented for measuring the first and second constants of the magnetic anisotropy of single crystals of lithium ferrites, as well as the first constant of magnetic anisotropy and the constant of induced uniaxial anisotropy of single crystals of lithium-cobalt ferrites. Measurements were carried out by ferromagnetic resonance at a frequency of 9375 Mc. On the basis of the single-ion theory, an explanation is given of the temperature dependence of

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ACC NR: AP6033833

the first constant of magnetic anisotropy of single crystals of lithium-cobalt ferrites. The authors thank S. M. Zhilyakov and A. N. Yelsukov for their assistance in the static measurements of the anisotropic constants, and G. Ye. Pashneva for the chemical analysis of the ferrites tested. Orig. art. has: 5 figures and 5 formulas. [Based on authors' abstract]

SUB CODE: 20/ SUBM DATE: 05Jan65/ ORIG REF: 003/ OTH REF: 006/

Card 2/2

L 8603-66 EWT(l)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5021171 UR/0139/65/000/004/0076/0081

44,55 44,55

AUTHOR: Stel'mashenko, M. A.; Bayukov, O. A.

TITLE: Determination of the temperature dependence of the first constant of the magnetic crystallographic anisotropy on polycrystalline lithium-aluminum ferrites

SOURCE: IVUZ. Fizika, no. 4, 1965, 76-81

21,44,55

TOPIC TAGS: temperature dependence, magnetic anisotropy, ferrite, lithium containing alloy, aluminum containing alloy, magnetic saturation, magnetic susceptibility

ABSTRACT: Experimental results are presented of measurements of the temperature dependence of the first constant of magnetic crystallographic anisotropy (k_1) in a series of polycrystalline ferrites $Li_{0.5}Fe_{2.5-a}Al_aO_4$, where a = 0, 0.2, 0.4, 0.5, and 0.6. The measurements were made by the method of approach to saturation in the temperature interval from 170 to 530K, in a pulsating magnetic field. The tests were made in a combined dc and ac (1500 cps) field. The results show that in fields 1000--2000 oe the differential susceptibility can be described by the expression $\kappa = A/H^2 + B/H^3 + C/H^4$ (A, B, C - constants, H magnetic field intensity) and that the temperature dependence of k_1 is in satisfactory quantitative agreement

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ACCESSION NR: AP5021171

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with the experimental data obtained with single crystals of the same type. Plots are presented of different terms of the susceptibility and of the constant k_1 vs. the temperature and the magnetic field. Orig. art. has: 5 figures and 2 formulas.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut imeni V. D. Kuznetsova (Siberian Physicotechnical Institute)

SUBMITTED: 29Dec63 44,55 ENCL: 00 SUB CODE: SS, EE

NR REF SOV: 009 OTHER: 005

Card 2/2 pw

ZAVADSKIY, Yu.Ye., inzh.; KARELOV, O.Ye., inzh.; Prinimali uchastiye: STEL'MASHENKO, M.B., inzh.; VYSOTSKIY, A.P., inzh.

Protection of silicon rectifier systems of electric rolling stock. Vest. elektroprom. 33 no.9:34-37 S '62. (MIRA 15:10)

(Electric railroads—Current supply)
(Electric current rectifiers)
(Electric protection)

LEVASHKIN, G., MIROSHIN, N., STELMASHENKO, V., AND STELMASHENKO, M.

Detectability of Cavities in Iron Pipes

Experimental data concerning the detection of deep artificial defects of cylindrical shape in thick-walled pipes of magnetized steel and iron are given. The detectability of defects appeared to be three to four times worse in iron pipes than in those of soft steel. (RZhFiz, No. 8, 1955) Tr. Sibirsk. Fiz.-Tekhn. in-ta Pri Tomskom un-te, No. 2, 1953, 241-247.

SO: Sum. No. 744, 8 Dec 55 - Supplementary Survey of Soviet Scientific Abstracts (17)

STEL'MASHONOK, I.M.

New esophageal plastic surgery technic. Khirurgiia, Moskva no.5: 47-49 May 1951. (CLML 20:9)

1. Of the Hospital Surgical Clinic (Director--I.M. Stel'mashonok), Minsk Medical Institute, Minsk.

STEL'MASHONOK, I.M.

Plastic surgery for an artificial esophagus. Khirurgiia 32 no.12: 7-13 D '56. (MLRA 10:2)

1. Iz gospital'noy khirurgicheskoy kliniki (dir. I.M.Stel'mashonok) Minskogo meditsinskogo instituta

(ESOPHAGUS, stenosis surg.)

STEL'MASHONOK, I.M.

AUTHOR: Stel'mashonok, I.M., Director of the Minsk Medical Institute

TITLE: A Good Practical Training for the Future Physician (Khoroshaya prakticheskaya shkola budushchego vracha)

PERIODICAL: Vestnik Vysshey Shkoly, 1957, # 9, pp 57 - 59 (USSR)

ABSTRACT: The author states that the Minsk Medical Institute has extended the practical training of its students, trying to give them fundamental, practical knowledge. This was done by two-week tours of practical training for students of the VIth course in a rural medical district, one-week practice in industrial medicine and 24 hours at emergency centers. Professor A.N. Velikoretskiy from the Ministry of Public Health, USSR, approved of this method. During the last year a two-week practice in municipal or district hospitals was organized for students having completed the IIIrd course. Experince has shown that a three-week tour would be useful.

The practical training of students of the IVth course is very important. During this period they must be able to verify their theoretical knowledge and prepare themselves for the medical profession. For this purpose the institute decided to send the students to important district hospitals at Brest, Grodno, Gomel and Mogilev. Each student could choose the place where

Card 1/ 2

STEL'MASHONOK, I.M. (Minsk, ul. Bibliotechnaya, d.6, kv.1)

Surgery in cicatricial stenosis of the esophagus and stomach. Nov.khir.arkh. no.1:77-81 Ja-F '59. (MIRA 12:6)

1. Kafedra gospital'noy khirurgii (zav. - I.M.Stel'mashonok) Minskogo meditsinskogo instituta.
(STOMACH--SURGERY) (ESOPHAGUS--SURGERY)

STEL'MASHONOK, Ivan Moiseyevich

[Perforating ulcer of the stomach and duodenum] Probodnaia iazva zheludka i dvenadtsatiperstnoi kishki. Minsk, Gos.izd-vo BSSR, 1961. 174 p. (MIRA 14:11)
(PEPTIC ULCER)

STEL'MASHONOK, I.M.

Late results of surgery for penetrating gastric and duodenal ulcer. Zdrav. Bel. 7 no. 4:31-34 Ap '61. (MIRA 14:4)

1. Iz kafedry gospital'noy khirurgii (zaveduyushchiy I.M. Stel'mashonok) Minskogo meditsinskogo instituta.
(PEPTIC ULCER)

STEL'MASHONOK, I.M.; MAZURO, G.F. (Minsk, ul. Krasnaya, d.19, kv.56)

Late results of surgical treatment of cicatricial stenosis of the stomach and esophagus observed by X-rays. Vest. rent. i rad. 36 no.4:50-52 Jl-Ag '61. (MIRA 15:2)

1. Iz kafedry gospital'noy khirurgii (zav. I.M.Sterl'mashonok) Minskogo meditsinskogo instituta.
(ESOPHAGUS--SURGERY) (STOMACH--SURGERY)

STEL'MASHONOK, I.M.; BONDALEVICH, V.Ya.

Blood supply of the jejunum functioning as an artificial esophagus. Khirurgiia 37 no.2:100-104 F '61. (MIRA 14:1)

1. Iz gospital'noy khirurgicheskoy kliniki (dir. I.M. Stel'mashonok) Minskogo meditsinskogo instituta.
(JEJUNUM—BLOOD SUPPLY) (ESOPHAGUS—SURGERY)

STEL'MASHONOK, I.M.

Etiology of an ulcer of the stomach and duodenum. Zdrav. bel. 8 no.1:36-38 Ja '62. (MIRA 15:3)

1. Iz kafedry gospital'noy khirurgii (zaveduyushchiy I.M. Stel'mashonok) Minskogo meditsinskogo instituta.
(PEPTIC ULCER)

STEL'MASHOV, V. N.

"On the Determination of the Parameters of Fish Plates During Their Reduction." Cand Tech Sci, All Union Sci Res Inst of Railroad Transport, Min Transportation USSR, Moscow, 1955. (KL, No 9, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

STEL'MASHOV, V. N.

STEL'MASHOV, V.N., inzh.

New straightening bar. Put' i put. khoz. no.10:42 O '57.(MIRA 10:11)
(Railroads--Rails)

STEL'MASHOV, V.N., kand. tekhn. nauk

Water pockets and their control. Put' i put. khoz. no.5:27-29
My '58. (MIRA 13:3)
(Ballast (Railroads))

STEL'MASHOV, V.N., kand.tekhn.nauk

Track maintenance of lines with heavy traffic. Put' i put.khoz. no.11:16-18 N '58. (MIRA 11:12)
(Railroads--Track)

STEL'MASHOV, V.N., inzh.

Improving the tie tamper. Put' i put.khoz. no.12:18 D '59.
(MIRA 13:4)

(Railroads--Ties)

STEL'MASHEV, V.N., kand.tekhn.nauk

Track maintenance on heavy-duty lines. Trudy TSNII MPS no.178 '59. (MIRA 13:4)
(Railroads--Track)

STEL'MASHUK, N.T.

Certain linear differential systems in partial derivatives.
Sib. mat. zhur. 5 no.1:166-173 Ja-F '64. (MIRA 17:7)

STEL'MASHUK, N.T. (g. Ivanovo)

Linear partial differential equations in dual and bicomplex algebras. Izv. vys. ucheb. zav.; mat. no.3:136-142 '64. (MIRA 17:12)

STEL'MASHUK, N.T. (Ivanovo)

Functional and invariant solutions of the Maxwell system.
Bull math Rum 6 no.1/2:97-106 '62 [publ. '64].

1. Submitted March 12, 1963.

STEL'MASHUK, V.

Reduce the construction costs of oil and gas wells. Fin. SSSR 23 no.3:29-30 Mr '62. (MIRA 15:3)
(Gas wells--Costs) (Oil wells--Costs)

ACC NR: AT7002860 (N) SOURCE CODE: UR/3239/66/000/003/0116/0123

AUTHOR: Stel'mashuk, V. N.

ORG: none

TITLE: Calculation of the supporting power of shells of revolution with constant thickness and with areas of a sharp increase in the curvature of the meridian

SOURCE: Nikolayev. Korablestroitel'nyy institut. Sudostroyeniye i morskiye sooruzheniya, no. 3, 1966. Sudovyye energeticheskiye ustanovki (Ship power equipment), 116-123

TOPIC TAGS: shell structure, shell structure stability, pressure, yield stress, prism, successive approximation, shipbuilding engineering

ABSTRACT: Formulas are given for calculating the supporting power of shell structures consisting of segments with small meridian curvature, joined by an intermediate segment with high curvature. The formulas are derived for uniform pressure. Statically, the allowable stressed state must satisfy the plasticity condition (which corresponds to the yield surface) and the equilibrium equations

$$\frac{d(rT_1)}{ds} - T_2\frac{dr}{ds} + \frac{rN_1}{R_1} = 0,$$

$$\frac{d(rN_1)}{ds} - \frac{rT_1}{R_1} - \frac{rT_2}{R_2} + rp = 0,$$

$$\frac{d(rM_1)}{ds} - M_2\frac{dr}{ds} - rN_1 = 0.$$

ACC NR: AT7002860

For shells with positive Gaussian curvature, the forces T_1 and T_2 in the region in question have different signs, and the plastic conditions correspond to planes MKL and QRVW of the yield prism (see Fig. 1):

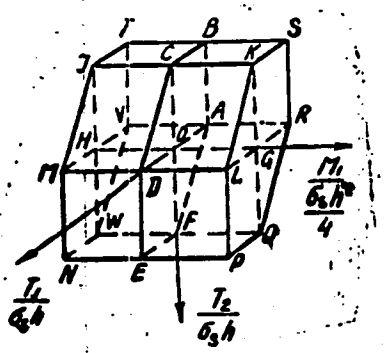

Fig. 1.

$$T_1 - T_2 = \pm T_s \ (T_s = \sigma_s h), \quad |M_1| < M_s \left(M_s = \frac{\sigma_s h^2}{4}\right).$$

For a shell of negative Gaussian curvature, the forces have the same sign. The following equations are obtained for the breaking pressures: a) for positive curvature

$$\varkappa = 2 \frac{\sum_{i=1,3} \left[\sqrt{\left(1 - \Delta_i + \frac{\varkappa}{2 \sin \varphi_i}\right) \frac{F_i}{\sin \varphi_i}} + \omega_i (1 - \Delta_i) \right]}{\sum_{i=1,3} (2 - i)(1 + \omega_i) \operatorname{ctg} \varphi_i};$$

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ACC NR: AT7002860

$$\operatorname{ctg}\varphi_3 = \frac{\sum_{i=1,3}\left[\sqrt{\left(1-\Delta_i+\frac{\varkappa}{2\sin\varphi_i}\right)\frac{F_i}{\sin\varphi_i}}+\varepsilon\nu_i(1-\Delta_i)\right](1+\varepsilon\lambda_i)\operatorname{ctg}\varphi_i}{\sum_{i=1,3}\left[\sqrt{\left(1-\Delta_i+\frac{\varkappa}{2\sin\varphi_i}\right)\frac{F_i}{\sin\varphi_i}}+\varepsilon\nu_i(1-\Delta_i)\right]};$$

$$\xi_i = \sqrt{\frac{F_i\sin\varphi_i}{1-\Delta_i+\frac{\varkappa}{2\sin\varphi_i}}};$$

$$F_i = \delta + \varkappa\varepsilon\lambda_i\left(1+\frac{\varepsilon\lambda_i}{2}\right)+\varepsilon^2\mu_i(1-\Delta_i);$$

b) for negative curvature

$$\varkappa = 2\frac{\sum_{i=1,3}\left[\sqrt{\left(1-\frac{\varkappa}{\sin\varphi_i}\right)\frac{\Phi_i}{\sin\varphi_i}}+\varepsilon\nu_i\right]}{\sum_{i=1,3}(i-2)(1+2\varepsilon\lambda_i)\operatorname{ctg}\varphi_i};$$

$$\operatorname{ctg}\varphi_3 = \frac{\sum_{i=1,3}\left[\sqrt{\left(1-\frac{\varkappa}{\sin\varphi_i}\right)\frac{\Phi_i}{\sin\varphi_i}}+\varepsilon\nu_i\right](1+2\varepsilon\lambda_i)\operatorname{ctg}\varphi_i}{\sum_{i=1,3}\left[\sqrt{\left(1-\frac{\varkappa}{\sin\varphi_i}\right)\frac{\Phi_i}{\sin\varphi_i}}+\varepsilon\nu_i\right]};$$

$$\xi_i = \sqrt{\frac{\Phi_i\sin\varphi_i}{1-\frac{\varkappa}{\sin\varphi_i}}};$$

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ACC NR: AT7002860

$$\Phi_i = \delta(1+\Delta_i) - \varkappa\varepsilon\lambda_i(1+\varepsilon\lambda_i) + \varepsilon^2\mu_i,$$

$$\Delta_i = \frac{\varepsilon\lambda_i}{2} + (i-2)\frac{\xi_i}{2}\operatorname{ctg}\varphi_i,\ j = |i-2|.$$

The kinematic solutions are also examined. The effect of the meridian curvature of the intermediate segment and its form on the bearing strength of the shell is determined. Orig. art. has: 21 formulas, 4 diagrams, 1 graph, and 1 table.

SUB CODE: 20, 13/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 002

Card 4/4

STELMASIAK, Mieczyslaw

Correlation between volumes and surfaces of nuclei of the corpus striatum in man. Ann. Univ. Lublin; sec. D 7 no.11-21:223-246 1952.

1. Z Zakladu Anatomii Prowidlowej Czlowieka Akademii Medycznej w Lublinie. Kierownik: prof. dr Mieczyslaw Stelmasiak.

(BASAL GANGLIA,
corpus striatum, correlation between volumes & surfaces of nuclei)

STELMASIAK, Mieczyslaw
STELMASIAK, Mieczyslaw

Length of the insula in man. Fol. morph., Warsz. 5 no.2:105-114 1954.

1. Z Zakladu Anatomii Prawidlowej Wydzialu Lekarskiego Akademii Medycznej w Lublinie. Kierownik: prof. dr. M.Stelmasiak.
(CEREBRAL CORTEX, anatomy and histology,
length of insula in man)

STELMASIAK, Mieczyslaw

Relation of the claustrum to other morphological characteristics of the brain in man. Ann. Univ. Lublin; sec. D 9:99-112 1954.

1. Z Zakladu Anatomii Prawidlowej Czlowieka Wydzialu Lekarskiego Akademii Medycznej w Lublinie. Kierownik: prof. dr. med. Mieczyslaw Stelmasiak.

(BRAIN, anatomy and histology,
relation of claustrum to other parts of brain.)

(BASAL GANGLIA,
claustrum, relation to other parts of brain)

STELMASIAK, Mieczyslaw

Correlation between length of the cerebral hemisphere to the lateral cerebral ventricle in man. Ann. Univ. Lublin; sec. D 9:113-130 1954.

1. Z Zakladu Anatomii Prawidlowej Czlowieka Wydzialu Lekarskiego Akademii Medycznej w Lublinie. Kierownik prof dr med. Mieczyslaw Stelmasiak.

(BRAIN, anatomy and histology, relation of length of cerebral hemisphere to lateral cerebral ventricle.)

(CEREBRAL VENTRICLES, anatomy and histology, relation of length of cerebral hemisphere to lateral cerebral ventricle)

STELMASIAK, Mieczyslaw.

Volume of the claustrum in man. Fol.morph.Warsz. 6 no.2:137-144 1955.

1. Z Zakladu Anatomii Prawidlowej Wydzialu Lekarskiego A.M. w Lublinie. Kierownik Zakladu: prof.dr med. M. Stelmasiak. Lublin Zaklad Anatomii Prawidlowej A.M.

(BASAL GANGLIA,
claustrum, volume in man)

STELMASIAK, Mieczyslaw

STELMASIAK, Mieczyslaw: Anatomical Atlas of the Human Brain and Spinal Cord. Warsaw, Polish State Medical Publishers, 1956. Translated from the 2d Revised Polish Edition, by F. Stanski.

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STELMASZCZYK, R.

STELMASZCZYK, R. Special restaurants of various types in Pozman. p. 12.

Vol. 11, no. 9, Sept. 1956
PRZEMYSL GASTRONOMICZNY
TECHNOLOGY
Warsaw, Poland

So. East European Accession Vol. 6, no. 2, Feb., 1957

STELMASZYK, I.

The struggle for coal economies in the Lodz District Administration of State Railroads; also, remarks by H. Blaszcyk. p. 332.
(PRZEGLAD KOLEJOWY MECHANICZNY. Vol. 8, no. 11, Nov. 1956, Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, Dec. 1957. Uncl.

STEIMASZYNSKA, Teresa; ZGLICZYNSKI, J.M.

Oxidation of cystine by hydrogen peroxide catalysed by horse-radish peroxidase. Acta biochim. pol. 10 no.4:371-378 '63.

1. Department of Physiological Chemistry, Medical School, Krakow.

(CYSTINE) (PEROXIDASES) (OXIDATION-REDUCTION) (PLANTS) (HYDROGEN PEROXIDE)

STELMOKAITE, A.

USSR/Chemical Technology - Chemical Products and Their Application. Silicates. Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62348

Author: Vektaris, B., Garjonyte, D., Stelmokaite. A., Jarulaitis, V., Jarmovskis, S.

Institution: None

Title: Chalk Marls as Raw Material for the Production of Silicate Brick

Original Periodical: Kauno politechn. institut. darbai, Tr. Kaunassk. politekhn. in-ta, 1955, 3, 61-69; Lithuanian; Russian resumé

Abstract: It was found that calcined chalk marls (M) of Lithuanian SSR can be used as calcareous component in the production of silicate brick. With a 10-15% content of M in the paste strength of the brick is 200-300 kg/cm^2. It is also possible to use calcined or partially calcined M as hydraulic additive (50% of the weight of binder) to produce brick of first grade.

Card 1/1

TUSHINSKIY, Yu.A., inzh.; STEL'MUKHOV, A.S., inzh.

Analyzing the application of type UMK-1 narrow range complex. (MIRA 15:6)
Sbor.DonUGI no.20:125-133 '61.
(Coal mining machinery)

STELOVSKA, V.

V. STELOVSKA, E. FISEROVA

"Biological and caloric value of meals in dietetic kitchens in Prague." p. 54.
(VYZIVA LIDU, Vol. 8, no. 4, Apr. 1953, Praha, Czechoslovakia.)

SO: Monthly List of East European Accessions, L.C., Vol. 2 No. 7, July 1953, Uncl.

STAT No. 1.

"[illegible] Trade Union Labor Reports."
[illegible]. (Trade Unionist. V. [illegible], No. 5, May 1953, London.)

Sc: Cont'd List of Soviet Library Accessions, Vol. 2, No. 9, Library of Congress, September 1953, Unclass.

STELOVSKA, V.

Preliminary nutritional directions for state working manpower reserve. Sborn. pathofysiol. trav. vyz. 8 no.3:175-176 Aug 54.

1. Ustav pro vyzkum vyzivy lidu, Praha (reditel doc. Dr. J.Masek)
(NUTRITION
in Czech., directions for state working manpower reserve)
(WORK
state working manpower reserve, in Czech., nutritional directions)

NOVOTNYY, A. [Novotny, V.]; SHTELOVSKAYA, V. [Stelovska, V.]

Nutritional survey of a group of workers in a heavy machinery plant and possibilities for vitamin enrichement of food in public eating facilities. Vop. pit. 19 no. 5:9-13 S-O '60. (MIRA 14:2)

1. Iz Instituta pitaniya, Praga.
(VITAMINS)

NERADILOVA, M.; HEJDA, S.; STELOVSKA, V.; NOVOTNY, A.

On the significance of differential diets as a source of efficient nutrition. Cesk. gastroent. vyz. 16 no.3/4:266-272 Ap 62.

1. Ustav pro vyzkum vyzivy lidu v Praze, reditel doc. MUDr. J. Masek, DrSc.

(NUTRITION)

STEL.OVSKY, I.

Survey of new inventions and patents. Slevarenstvi 9 no.12: 482-484 D '61.

STELOVSKY, Ivan

Furnaces for cast-iron malleableizing in gaseous medium.
Slevarenstvi 11 no.5:195-197 My '63.

1. Zavody V.I. Lenina Plzen, n.p.

STELOVSKY, I.

Survey of new inventions and patents. Slevarenstvi 11 no.5:214-217 My '63.

STELOVSKY, Ivan, dr.

"Forge heating equipment" by M.A. Kasenkov. Reviewed by Ivan Stelovsky. Stroj vyr 11 no.5:270 My '63.

STELOVSKY, Ivan, dr.

"Mechanization and automation of heat treatment" by K.N. Sokolov. Reviewed by Ivan Stelovsky. Stroj vyr 11 no.6:325 Je '63.

STELOVSKY, I.

Survey of new inventions and patents. Slevarenstvi 11 no.8/9:407-410 Ag '63.

STELOVSKY, I.

Survey of new inventions and patents. Slevarenstvi 11 no.11: 486-489 N'63.

STELOVSKY, I.

Survey of new inventions and patents. Slevarenstvi 11 no.12: 538-541 D'63.

STEPANOV, I.

Inventions and patents. Mekhanizatsiia 12 no.2:28-30 F '34.

STELOVSKY, Ivan, dr.

Furnaces for case hardening in gas medium. Stroj vyr 12 no.3: 181-186 '64.

1. Zavody V.I. Lenina, National Enterprise, Plzen.

STELOVSKY, I.

Inventions and patents. Slevarenstvi 12 no.9:371-373 S '64.

STELOVSKY, I.

Inventions and patents. Slevarenstvi 12 no.10:400-402 O '64.

STELOVSKY, I.

Inventions and patents. Slevarenstvi 13 no.2:80-82 F '65.

STELOVSKY, I.

Inventions and patents. Slevarenstvi 13 no.3:120-122 Mr '65.

S/058/63/000/001/044/120
A062/A101

AUTHOR: Stelson, P. V.

TITLE: Oscillations in spherical and quasi-spherical nuclei

PERIODICAL: Referativnyy zhurnal, Fizika, no. 1, 1963, 3, abstract 1V17 (In collection: "Stroyeniye yadra". Moscow, Gosatomizdat, 1962, 293 - 301)

TEXT: Certain properties of a large group of non-deformed nuclei can be successfully explained by phonon oscillations in the Bohr and Mottelson theory. The phonon model explains certain characteristics of the γ-decay of these nuclei that cannot be explained from the point of view of the shell model. The general constancy of the energy ratio of the second and first excited states, the magnitude of that constancy and the observed spins testify in favor of the phonon model. It is noted, however, that this model does not describe the nucleus so well quantitatively as the rotational model describes deformed nuclei. See also RZhFiz, 1961, 11B213.

[Abstracter's note: Complete translation]

Card 1/1

CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Application. Chemical Engineering. H-2

Abs Jour: Ref. Zhur-Khim., No 2, 1959, 4925.

Author : Stelsovsky E., Hanzalek J., Servus S.
Inst :
Title : Jet Gas Purifier.

Orig Pub: Strojirenstvi, 1958, 8, No 1, 3-7.

Abstract: A jet gas purifier is used to eliminate highly dispersed particles from a gas. It consists of a Venturi tube, into which the gas to be purified flows at a speed of 50 - 150 m/sec and the atomized liquid is fed simultaneously, and of a cyclone. The formed drops of the liquid moisten and aggregate the particles present in the gas, after which they are eliminated from the gas in the cyclone. Graphs showing the dependence of the effectiveness of the work of the gas purifier on the velocity of the gas, on the size of drops and on

Card : 1/2

Abs Jour: Ref. Zhur-Khim., No 2, 1959, 4925.

the amount of the atomized liquid are presented. Data concerning the work of a gas purifier used for the purification of generator gas from drops of a liquid are given: the capacity is 5000 cub.m per hour, the diameter of the cyclone is 1.0 m and its height is 3.25 m, the initial concentration of drops of the liquid in the gas is 40 - 50 g per cub.m, the extent, to which the drops are intercepted is more than 99%, the final concentration of drops of the liquid in the gas is 0.2 - 0.4 g per cub.m, the temperature of the gas is 55 to 65° and the resistance of the gas purifier is 240 mm of water column. - Yu. Skoretskiy.

30(1) SOV/25-59-8-32/48

AUTHOR: Stelter, Helmut

TITLE: Nematoda-Resistant Potatoes

PERIODICAL: Nauka i zhizn, 1959, Nr 8, p 68 (USSR)

ABSTRACT: During the past years, scientists of the DDR have been working on finding types of potatoes which resist nematodas. The Institute for Plant Selection in Grossluesewitz near Rostock is cultivating a type of potatoe which will be resistant against nematodas and be suitable for cultivation on fields. Besides this, the new types will help destroy this parasite as the larvae can penetrate into the root of the plant, but they do not find the necessary conditions of life, and so perish.

ASSOCIATION: Institut selektsii rasteniy v Groslyuzevitse (Institute of Plant Selection in Grossluesewitz, DDR)

Card 1/1

L 42441-65 EWT(d)/T IJP(c)

ACCESSION NR: AR5009707 UR/0058/65/000/002/H001/H001

SOURCE: Ref. zh. Fizika, Abs. 2Zh5

AUTHOR: Stel'tsov, B. N.

TITLE: Struve functions of complex argument

CITED SOURCE: Tr. uchebn. in-tov svyazi. M-vo svyazi SSSR, vyp. 20, 1964, 187-193

TOPIC TAGS: Struve function, complex argument, real part, imaginary part, recurrence formula

TRANSLATION: Struve functions of complex argument are resolved into imaginary and real parts and expressed in terms of the functions

tion of these functions. Tables and plots of $ster_1z$ and $stei_1z$ are given, and also tables of plots of the first five derivatives of these functions.

SUB CODE: MA ENCL: 00

Card 1/Pcl

STEL'TSOV, O. A.

USSR/Chemistry - Physical Chemistry

Card : 1/1

Authors : Gerasenkova, A. N. Rusov, M. T. and Stel'tsov, O. A.

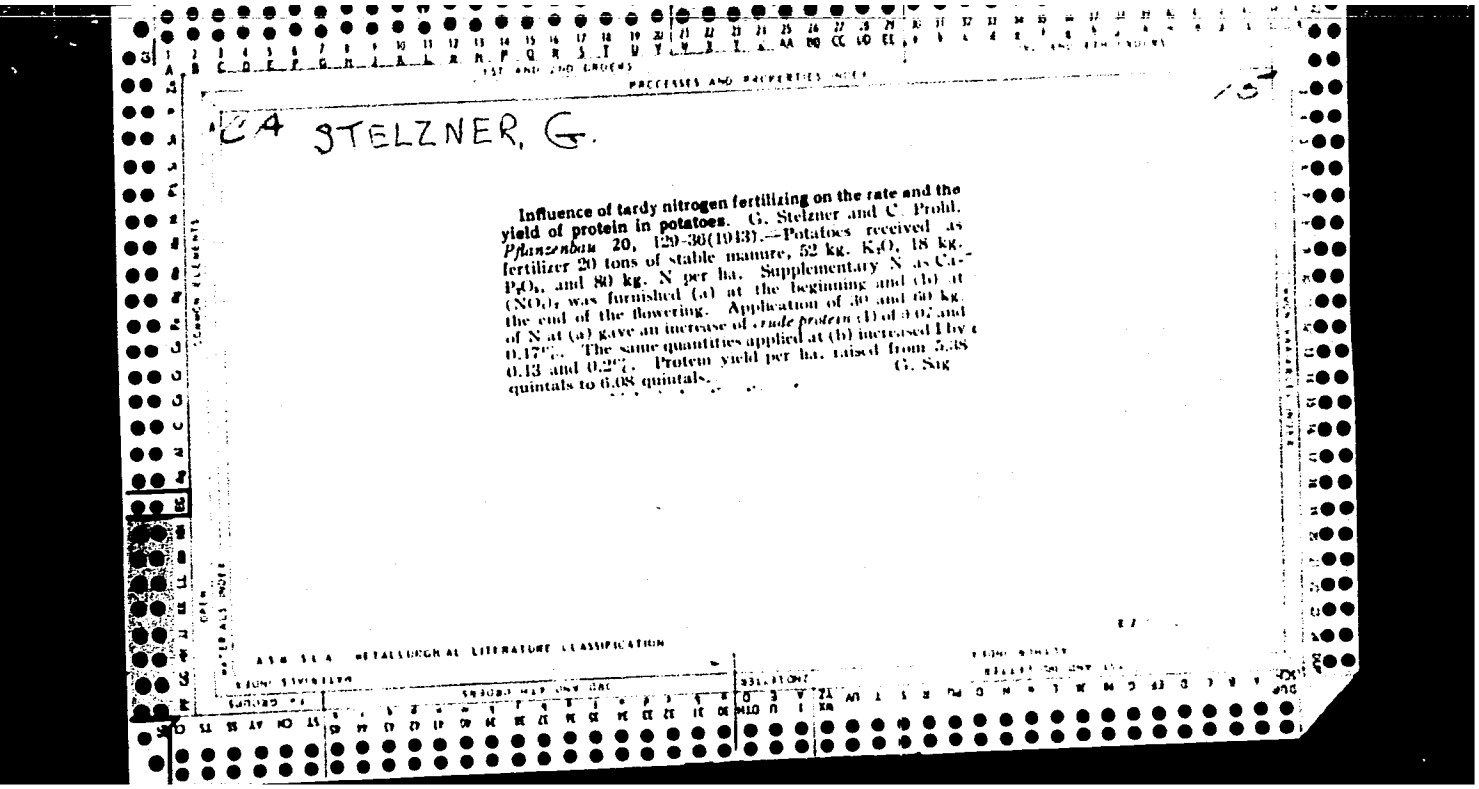
Title : Effect of reducing conditions on the activity of a smooth surface of an iron catalyst

Periodical : Dokl. AN SSSR, 96, Ed. 6, 1179 - 1181, June 1954

Abstract : The effect of reducing conditions on the activity of a smooth surface iron catalyst was investigated on a thin smooth iron foil activated with aluminum oxide. The activity of the catalyst depends not only upon the chemical composition and the preparation of the contact but also upon the conditions of its formation. The process of reducing such catalysts is retarded by the internal diffusion exchange of reaction components which leads to a change in the activity of the catalyst and change in grain structure. Seven references. Tables, graphs.

Institution : ...

Presented by : Academician A. N. Frumkin, March 15, 1954



CA STELZNER, G.

Influence of tardy nitrogen fertilizing on the rate and the yield of protein in potatoes. G. Stelzner and C. Prohl. *Pflanzenbau* 20, 129-30(1943).—Potatoes received as fertilizer 20 tons of stable manure, 52 kg. K_2O, 18 kg. P_2O_5, and 80 kg. N per ha. Supplementary N as $Ca(NO_3)_2$ was furnished (a) at the beginning and (b) at the end of the flowering. Application of 30 and 60 kg. of N at (a) gave an increase of *crude protein* (I) of 3.07 and 0.17%. The same quantities applied at (b) increased I by 0.13 and 0.2%. Protein yield per ha. raised from 5.48 quintals to 6.08 quintals. G. Sug

S/169/62/000/010/023/071
D228/D307

AUTHORS: Vaněk, Jiři and Stelzner, Johannes

TITLE: Uniform determination of earthquake magnitudes for Mid-European stations

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 10, 1962, 27-28, abstract 10-179 (Geofys. sb., no. 126-145, 1960 (1961), 299-399 (Ger.; summaries in Czech and Rus.))

TEXT: The use of systems of close seismic stations, provided with seismographs of one type and able to determine the intensity by the same method, was proposed in order to increase the reliability and accuracy of determining earthquake intensities. The first step in the creation of this system in Central Europe was to develop an identical intensity determination method for the stations Prague and Jena. The fundamental Prague reference functions $p_j(\Delta,T)$ for j = PII, PV, PPII, SH, MH were also found to be correct in the first approximation for the Jena station. The corresponding equation intensity constants for the stations Kolmberg and Potsdam

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Uniform determination ...

were derived by the same method. The resulting system of 4 Mid-European stations, which can determine intensities from surface and body waves by an identical method, allows not only the intensities obtained to be checked mutually, but also the observable amplitudes to be applied as homogeneous data. A uniform method of determining intensities is described. Separate station constants for all the wave types investigated, earthquake parameters and the body and surface wave intensity values are given in tables. Special attention is paid to the determination of intensities by means of the vertical surface wave component MV. The Prague body wave reference functions were also shown to be suitable in a first approximation for determining the intensities at all 4 stations; it was established, however, that they should be refined for certain epicentral distances. The authors derived the second approximation of the body wave reference functions, which can be taken as the identical reference functions for Central Europe. A sufficient number of observations allowed the reference function structure to be investigated. Oscillation-type phenomena, which are directly related to the mantle's structure, were observed in certain epicentral distance ranges. Since the mean

Uniform determination ...

error of one observation is, on an average, ± 0.14 of a unit of the intensity, it is possible by means of the second approximation of the reference functions to determine intensities from body waves three times more accurately than is the case by means of the primary reference functions.

[Abstracter's note: Complete translation]

Card 3/3

22791

S/070/61/006/003/002/009
E021/E435

247/100 (1160, 1136, 1142)

AUTHORS: Venevtsev, Yu.N., Bondarenko, V.S., Zhdanov, G.S., Chkalova, V.V. and Stember, N.G.

TITLE: Anomalous changes in the lattice parameters, the dielectric and piezoelectric properties of (Ba, Pb)TiO_3 solid solutions

PERIODICAL: Kristallografiya, 1961, Vol.6, No.3, pp.375-380

TEXT: Samples were prepared from chemically pure titanium dioxide and barium and lead carbonates. X-ray investigations showed that solid solutions of (Ba, Pb)TiO_3 had a tetragonal-distorted cell of the perovskite type. Results of precision measurements on the parameter of the cell are given in Fig.1, where changes in lattice parameters and volume are plotted against weight % $PbTiO_3$. The curves are not continuous and there are sharp changes at 5.5, 9.2, 11.2 and 13.5% $PbTiO_3$. Fig.1a shows the periods of the crystal lattice c and a; Fig.1б shows c/a; Fig.1в shows the volume v of the elementary cell against weight % $PbTiO_3$. The results of measurements of the dielectric constant ε against temperature (°C) are shown in Fig.2 (the numbers on the curves correspond to the % $PbTiO_3$). The values of

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S/070/61/006/003/002/009
E021/E435

Anomalous changes ...

the dielectric constant at the Curie point ε_{max} are plotted against concentration (wt.%) $PbTiO_3$ in Fig.3. There are sharp maxima at 5.5, 9.2, 11 and 13.7% $PbTiO_3$. The curves in Fig.2 enable the Curie point and the positions of the second and third phase transformations to be found. On the basis of these measurements, the phase diagram at the $BaTiO_3$ rich end can be drawn (Fig.4). The change in the piezo-modulus d_{33} with composition is shown in Fig.5. There are maxima at 5.5, 11.2 and 13.5 wt.% $PbTiO_3$. The obtained data agree in many respects with those of previous work when commercially pure materials were used. The results, as well as published data, lead to the conclusion that the observed anomalies are characteristic of the solid solutions of (Ba, Pb)TiO_3 and they may be due to the differences in the properties of the barium and lead titanates. A change in the type of ferroelectrically active cations probably takes place in the concentration range of 11.2 to 1.35 wt.% $PbTiO_3$ when the second and the third phase transitions, which are characteristic for barium titanate, ceased to exist. Other observed anomalies are also attributed to the differences in the properties of the titanates of barium and lead. Acknowledgments are expressed to Senior

Card 2/3

Anomalous changes ...

laboratory assistant B.G.Nikolov, Technician I.I.Moreva, Engineer V.A.Ulitin and Laboratory assistant G.V.Bazhanova for their assistance. There are 5 figures and 9 references: 4 Soviet-bloc and 5 non-Soviet-bloc. The three references to English language publications read as follows: H.D.Megaw, Proc. Phys.Soc., 58, 133, 1946; G.Shirane, F.Jona, R.Pepinsky, Proc.IRE, 43, 12, 1738, 1955; B.Joffe, R.S.Roth, S.Marzullo, J.Res.Nat.Bur. Standards, 55, 5, 239-254, 1955.

ASSOCIATION: Fiziko-khimicheskiy institut im. L.Ya.Karpova (Institute of Physics and Chemistry imeni L.Ya.Karpov)

SUBMITTED: August 24, 1960

Card 3/3