USSR/ Human and Animal Physiology (Normal and Pathological).
Blood Circulation General

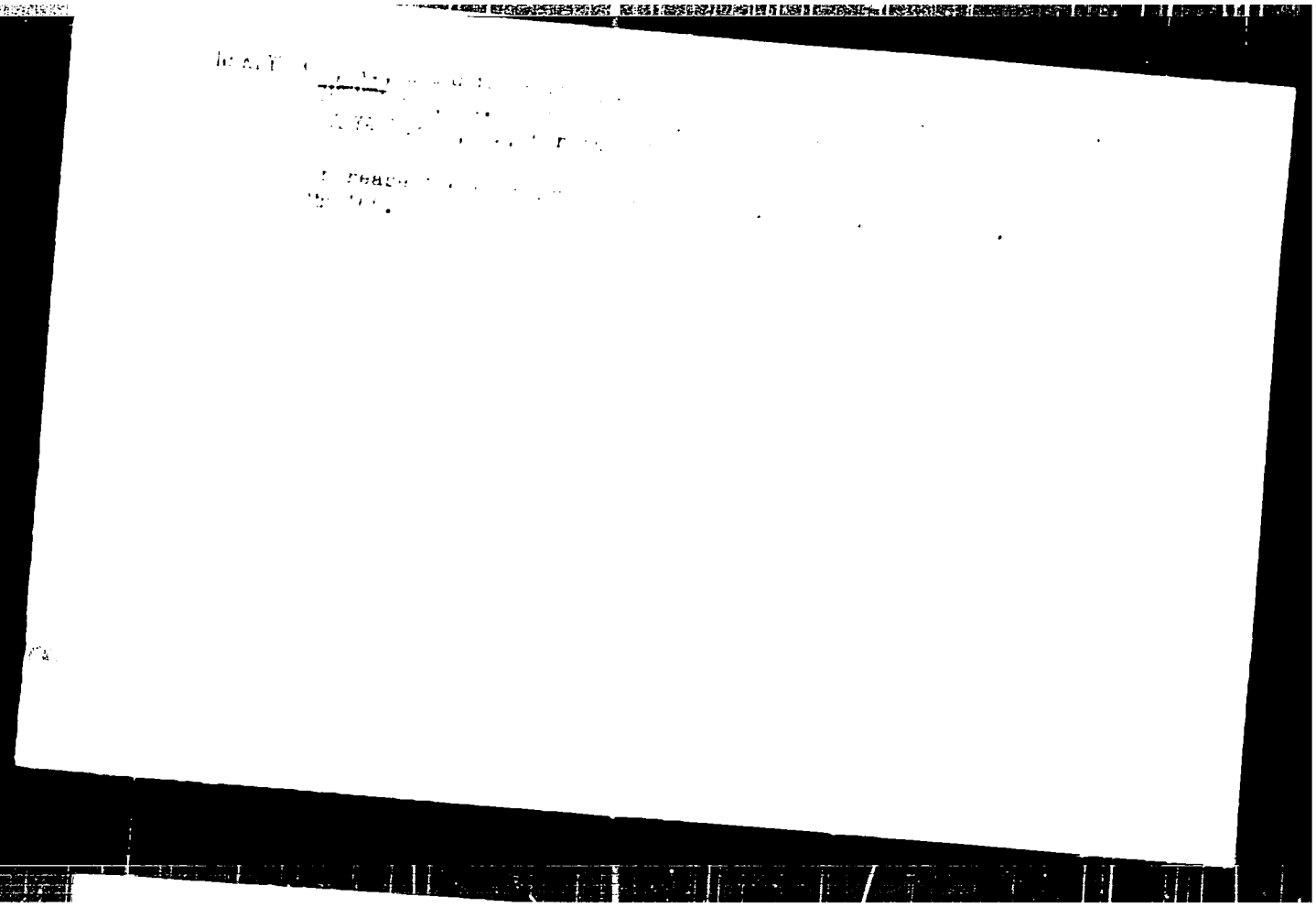
Abs Jour: Ref Zhur-Biol , N. 17, 1958, 79528

Author : Neklynyev, N.F.
Inst :
Title : Change of Pulse and Blood Pressure in School Children and Adults With Endemic Goiter.

Orig Pub: Uch. zap. Krasnodarsk. gos. ped in-t, 1956, vyp 18, 184-189.

Abstract: No abstract

Card : 1/1



NEKLYUDOV, A., komandir korablya Tu-124

New things in competition. Grazhd. av. 22 no.3:9 Mr '65.
(MIRA 18:7)

ACC NR: AP6035278 (N) SOURCE CODE: UR/0310/66/000/009/0045/0046

AUTHOR: Neklyudov, A. (Senior Engineer; Inspector)

ORG: Central Volga Inspection Division of the River Registry Office of the RSFSR (Srednevolzhskaya inspektsiya Rechnogo Registra RSFSR)

TITLE: Modernized transverse bow propulsion installation

SOURCE: Rechnoy transport, no. 9, 1966, 45-46

TOPIC TAGS: ship, ship component, marine engineering, propulsion device, cargo ship

ABSTRACT: Inadequate maneuverability of ships more than 100 meters long in river ports has necessitated the development of a new system of transverse bow propulsion. The positioning, and interrelationships between the components, of the modernized system installed in tankers of Project 558 built late in 1965 are described and a schematic diagram is presented. Basic data on the maneuverability of these tankers are tabulated. The advantages of the new system over the old one are enumerated. Orig. art. has: 1 figure and 1 table.

SUB CODE: 13/SUBM DATE: None

Card 1/1 UDC: 629.12:532.5.075.014.6

85415

15 8109

S/190/60/002/011/011/027
B004/B060

AUTHORS: Losev, I P , Smirnova, O V Portunatov, O G
Neklyudov, A. D

TITLE: Study of Interfacial Polyesterification

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol 2 No ··, pp. 1659 - 1664

TEXT: The authors report on their experiments on interfacial formation of polyesters and on data found concerning the dependence of the properties of polymers obtained on the components applied, as well as concerning the effect of reaction conditions Polyesters were synthesized at a ··· ratio of the components to one another, a concentration of 0 05 mole/l, 20°C, reaction time 30 min, and rpm of the stirrer 1200 r/min The components used were bivalent alcohols (phenols) and dicarboxylic acids Results are given in Table ··

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Study of Interfacial Polyesterification

S/190/60/002/011/011/027
B004/B060

Table 1

glycol	acid chloride	polyester soluble in:	melting point, °C	film
$HO(CH_2)_2-OH$	$ClOC-C_6H_4-COCl$	cresol, dimethyl formamide	215	stable
$HO(CH_2)_4-OH$	$ClOC-(CH_2)_8-COCl$	acetone, toluene methylene chloride	82 83	transparent little stable
dto	$ClOC(CH_2)_4COCl$	dto	65 66	dto
m $C_6H_4(OH)_2$	$ClOC-C_6H_4-COCl$	cresol	not melting	
dto	$ClOC-(CH_2)_8-COCl$	acetone, toluene methylene dichloride	118 120	little stable
dto	$ClOC-(CH_2)_4-COCl$	dto.	98 100	dto
$HO-C_6H_4-\underset{\underset{CH_2-CH_3}{\vert}}{\overset{\overset{CH_3}{\vert}}{C}}-C_6H_4-OH$	$ClOC-C_6H_4-COCl$	cresol, dimethyl formamide	340-345	stable film

Card 2/6

Study of Interfacial Polyesterification

S/[illegible]/90/60/002/[illegible]/027
B004/B06C

Continuation of Table [illegible]

glycol	acid chloride	polyester soluble in	melting point °C	film
dto	ClOC-$(CH_2)_8$-COCl	acetone toluene		rubber like
dto	ClOC-$(CH_2)_4$-COCl	dto		[illegible]
HO C_6H_4 C(C_6H_{11}) C_6H_4-OH	ClOC-C_6H_4-COCl	cresol	no melting	
dto	ClOC-$(CH_2)_8$-COCl	acetone, toluene, methylene chloride	148 150	stable transparent film
dto	ClOC-$(CH_2)_4$-COCl	acetone, toluene	94 96	very soluble transparent
HO-C_6H_4-C(CH_3)(CH_3)-C_6H_4-OH	ClOC-C_6H_4-COCl	cresol	139 140	stable film

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Study of Interfacial Polyesterification

85415
S/190/60/002/011/012/027
B004/B060

Continuation of Table

glycol	acid chloride	polyester soluble in:	melting point °C	film
dto.	$ClOC-(CH_2)_8-COCl$	acetone toluene		rubber like
dto	$ClOC-(CH_2)_4-COCl$	dto		dto

Polyesters from 4,4'-dihydroxy diphenyl methyl ethyl methane and adipic chloride or sebacic chloride yield stable transparent films with good adhesion to glass and metal. Aliphatic glycols exhibited a low reactivity and gave poor yields. Copolymerization of 4,4'-dihydroxy diphenyl cyclohexane with adipic chloride (AC) and terephthalic chloride (TPC) under the same conditions as before, gave the following results:

Table 2

TPC·AC	melting point	solubility	TPC·AC	melting point	solubility
100·0	not melting	insoluble	60·40	164-166	in m cresol, dimethyl formamide
90·10	276-278	in m cresol			
80·20	238-240	dto	50·50	138-140	in dimethyl formamide, m cresol
70·30	185-190	dto			

Card 4/6

Study of Interfacial Polyesterification S/190/60/002/011/011/027
B004/B060

Continuation of Table 2

TPC:AC	melting point	solubility	TPC:AC	melting point	solubility
40:60	140-142	in dimethyl formamide, m-cresol	20:80	108-110	dimethyl formamide, cresol, toluene, acetone
30:70	118-122	dto	10:90	98-102	dto

With rising TPC content the ability to form films is reduced to diminished solubility. The effect of the concentration of the components, their initial ratio, temperature, alkali added, reaction time upon the intrinsic viscosity (determined by an Ostwald-Pinkevich viscosimeter) and yield was examined by the example of 4,4'-dihydroxy diphenyl-2,2-propane (Dian) and TPC. The results are as follows: 1) The reaction proceeds most readily with Dian excess. Increase of concentration of components increases viscosity and yield. 2) The optimum initial component concentration is 0.11 mole/l for viscosity, 0.13 mole/l for yield. 3) This difference of the maxima of 0.02 mole/l is eliminated if NaOH is added with an excess of 0.5 mole per mole of Dian. Viscosity and yield then attain a maximum at

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05415

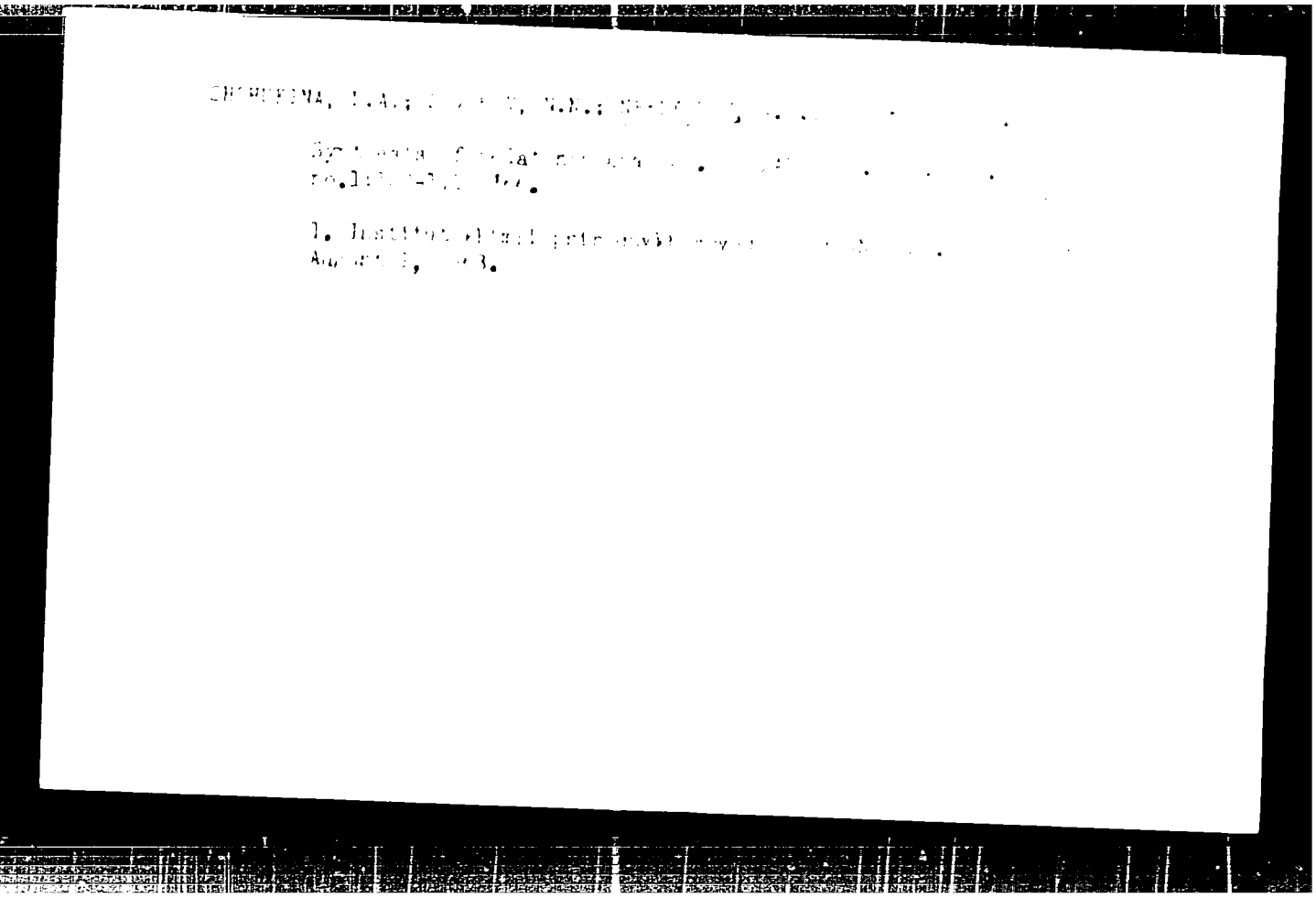
Study of Interfacial Polyesterification S/190/60/002/0[illegible] B004/B060

0.[illegible] mole/l 4) Viscosity and yield drop with rising NaOH concentration as NaOH enters into reaction with the acid chloride 5) Optimum temperature is 18-20°C 6) Optimum reaction time is 25 min for maximum viscosity, while the maximum yield is already attained after [illegible] min There are 2 figures, 2 tables and 5 references: 3 Soviet, 2 US and 1 British

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im D I Mendeleyeva (Moscow Institute of Chemical Technology imeni D I Mendeleyev)

SUBMITTED: May 6 1960

Card 6/6



NEKLYUDOV, Aleksandr Kus'mich, brigadir; MIRONOV, T.V., red.; MATVEYEV, A.P., tekhn. red.

[In our mixed brigade] V nashei kompleksnoi brigade. Moskva, Izd-vo "Sovetskaia Rossiia," 1961. 15 p. (MIRA 14:12)

1. Kompleksnaya brigada kolkhoza "Drushba" Kiyasovskogo rayona Udmurtskoy ASSR (for Neklyudov).
(Kiysovo District—Collective farms)

SHCHAPOV, M.A., starshiy nauchnyy sotrudnik; IVANOVA, M.I.; BATUNOVA, N.A., inzh.; NEKLYUDOV, A.N.

Determining the optimum braking load of the tension devices on winding and warping machines. Tekst. prom. 25 no.4:33-35 Ap '65. (MIRA 18:5)

1. Ivanovskiy nauchno-issledovatel'skiy institut tekstil'noy promyshlennosti (for Shchapov). 2. Nachal'nik laboratorii tekstil'noy fabriki imeni Dzerzhinskogo (for Ivanova). 3. Laboratoriya tekstil'noy fabriki imeni Dzerzhinskogo (for Batunova). 4. Zamestitel' nachal'nika motal'no-snoval'nogo otdela tekstil'noy fabriki imeni Dzerzhinskogo (for Neklyudov).

NEKLYUDOV, B., slesar' (Tula)

Nikolai Chernov is a restless man. Sov. profsoiuzy 17 no.6:22-25 Mr '61. (MIRA 14:3)

(Socialist competition)
(Gauges)

BEL'KIND, L.D.; VENIKOV, V.A.; GLAZUNOV, A.A.; GRUDINSKIY, P.G.; [illegible], B.I.; ZHEBROVSKIY, S.I.; LAPSHINSKIY, V.I.; MIKHAYLOV, B.E.; [illegible], V.I.; RAZEVIG, D.V.; ROZHKOVSKIY, G.I.; SAFONOV, A.I.; SOKOLOV, [illegible]; SOLDATKIN, I.A.; TAYTS, A.A.; UL'YANOV, S.A.; FEDOSEYEV, A.M.; KHEYSTER, V.V.

Boris Arkad'evich Teleshev; on his 70th birthday and the 45th anniversary of his engineering and educational work. Elektrichestvo no. [illegible] 54.

(MIRA 17:1)

L 2968-66 EWT(d)/EWP(k)/EWP(l)
ACCESSION NR: AP5026355 UR/0105/64/000/009/0091/0091

AUTHOR: Bel'kind, L. D.; Venikov, V. A.; Glazunov, A. A.; Grudinskiy, P. G.; Zhadin, K. P.; Zhebrovskiy, S. P.; Lapitskiy, V. I.; Neklyudov, B. K.; Pavlenko, V.A. Razevig, D. V.; Rossiyevskiy, G. I.; Safonov, A. P.; Sokolov, N. I.; Soldatkina, L.A. Tayts, A. A.; Ul'yanov, S. A.; Fedoseyev, A. M.; Kheyster, V. A.

TITLE: Professor B. A. Teleshev on this 70th birthday and the 45th anniversary of his engineering, scientific, and teaching activity

SOURCE: Elektrichestvo, no. 9, 1964, 91

TOPIC TAGS: electric engineering personnel

ABSTRACT: Boris Arkad'yevich Teleshev was seventy years old 12 March 1964. He graduated from the electromechanical department of the Petrograd Polytechnic Institute in 1917 and gained the title Electrical Engineer in 1920. In the Union of Electric Power Stations of the Moskovskiy rayon, Teleshev was one of the founders of the first dispatcher service of the Moscow Power System, the chief dispatcher of this system, the manager of the high-voltage networks of the Moscow Union, the chief engineer in construction of the Moscow high-voltage network and of the high-voltage networks of the

Card 1/3

Moskovskiy rayon and the chief engineer in construction of the Bobrikovsk (now Novomoskovsk) hydroelectric station. In connection with the reorganization of construction in 1931, Teleshev was transferred to Energostroy, first as chief engineer of the Moscow division and then as deputy chief of the design administration of Energostroy (now Teploelektroproyekt). In 1934, Teleshev took the post of assistant director of the Scientific Section of the Power Engineering Institute imeni Krzhizhanovskiy of the Academy of Sciences USSR and worked as the immediate assistant to Academician G. M. Krzhizhanovskiy in directing the Institute until 1946. Starting in 1923, he did scientific research work first at the Moscow Institute of Mechanics im. Lomonosov and then at the Institute of National Economy im. Plekhanov. After the founding of the Moscow Power Engineering Institute in 1930, Teleshev transferred to that Institute and worked there until 1940. Here he was Lecturer of the Department of "Central Electric Stations" and a professor in the department. He received his professorship in 1933. He was Dean of the Electric Power Department of the Institute from 1932-1936. In 1940, Teleshev was made director of the Department of Electrical Engineering of the Moscow Institute of Fine Chemical Technology where he remained until 1966. In 1944 he took part in organizing the Power Engineer-

ACCESSION NR: AP5026355

ing Department of the Moscow Institute of Engineering Economics im. S. Ordzhonikidze. From [illegible] to the present, Teleshev has been director of the Department of "Electric Stations and Substations" and there have been two printings of his textbook on a course in "General Electrical Engineering." Teleshev has acted in a consultative capacity in plans for a great number of electrical stations and networks. He participated in the Government Consultation on the Dnepr hydroelectric station im. V. I. Lenin. He has been an active member of the Scientific and Technical Society of the Power Industry for more than 20 years. He was chairman of the Moscow board of the Society from 1944 to 1961. For his service to the Society, he has been made a permanent member. In 1960 he was elected deputy in the Moscow Council of Deputies of the Workers. He has been decorated with the Order of Lenin, the Order of the Red Banner of Labor and with medals.

Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: ES

NR REF SOV: 000 OTHER: 000 JPRS

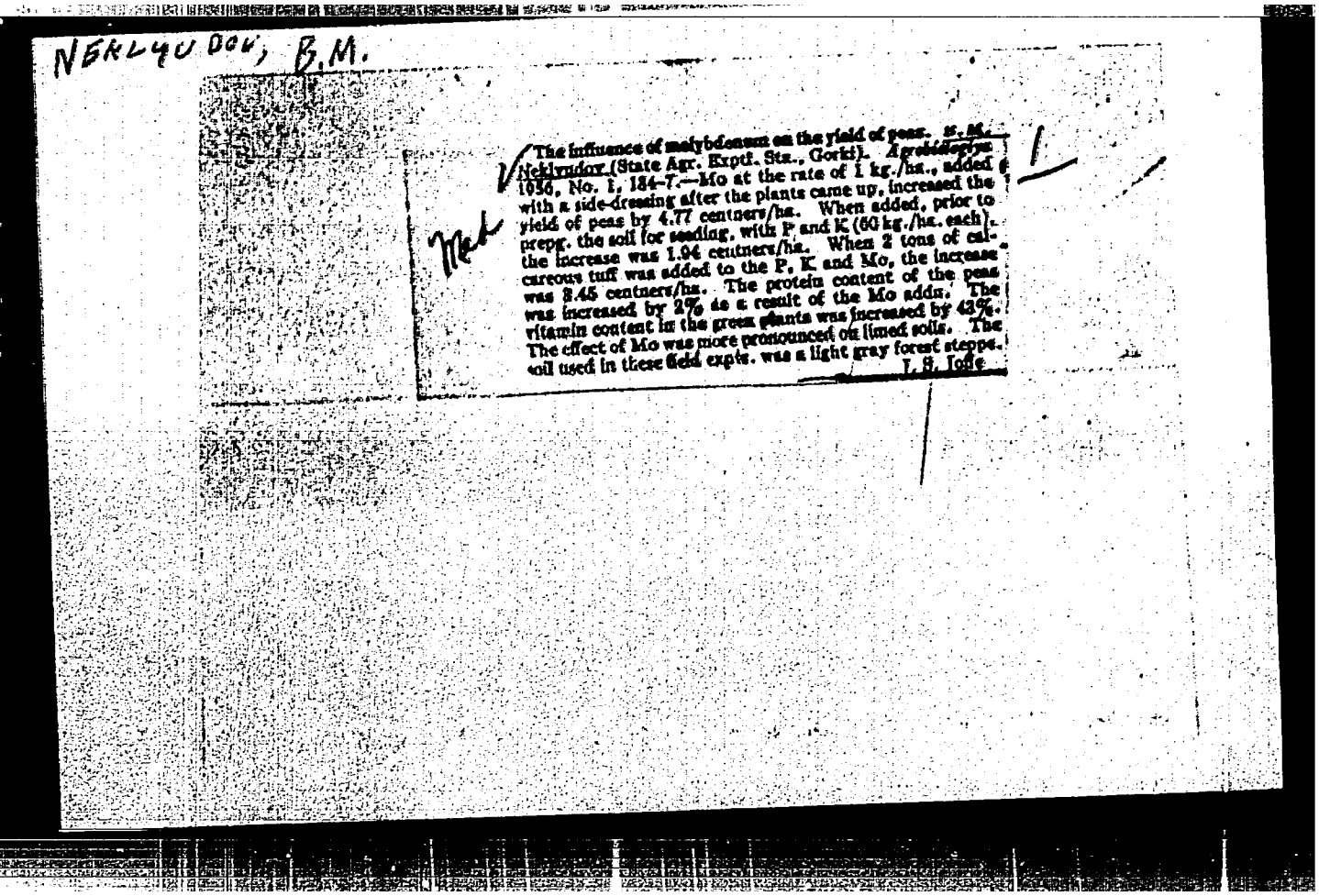
1. NEKLYUDOV, B. M.

2. USSR 600

4. Peas

7. Effect of time and method of sowing, quantity of seeds, and separate sowing of graded seeds on the yield of peas, Sov. agron, 11, No. ?, 1953.

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



NERLYU DOC; B.M.

The influence of molybdenum on the yield of peas. S. M. Nekhyudov (State Agr. Exptl. Sta., Gorki). *Agrobiologiya* 1936, No. 1, 134-7.—Mo at the rate of 1 kg./ha., added with a side-dressing after the plants came up, increased the yield of peas by 4.77 centners/ha. When added, prior to prepg. the soil for seeding, with P and K (60 kg./ha. each), the increase was 1.94 centners/ha. When 2 tons of calcareous tuff was added to the P, K and Mo, the increase was 8.45 centners/ha. The protein content of the peas was increased by 2% as a result of the Mo addn. The vitamin content in the green plants was increased by 43%. The effect of Mo was more pronounced on limed soils. The soil used in these field expts. was a light gray forest steppe.

I. S. Joffe

M

COUNTRY : USSR
CATEGORY : Cultivated Plants. Cereals

ABS. JOUR. : RZhBiol., No.23 1958, No. 104674

AUTHOR : Neklyudov, B. M.
INST. :
TITLE : The Influence of the Treatment of Seeds with Molybdenum on the Yield of Peas and Vetch.

ORIG. PUB. : Udobreniye i urozhay, 1957, No. 4, 36-40

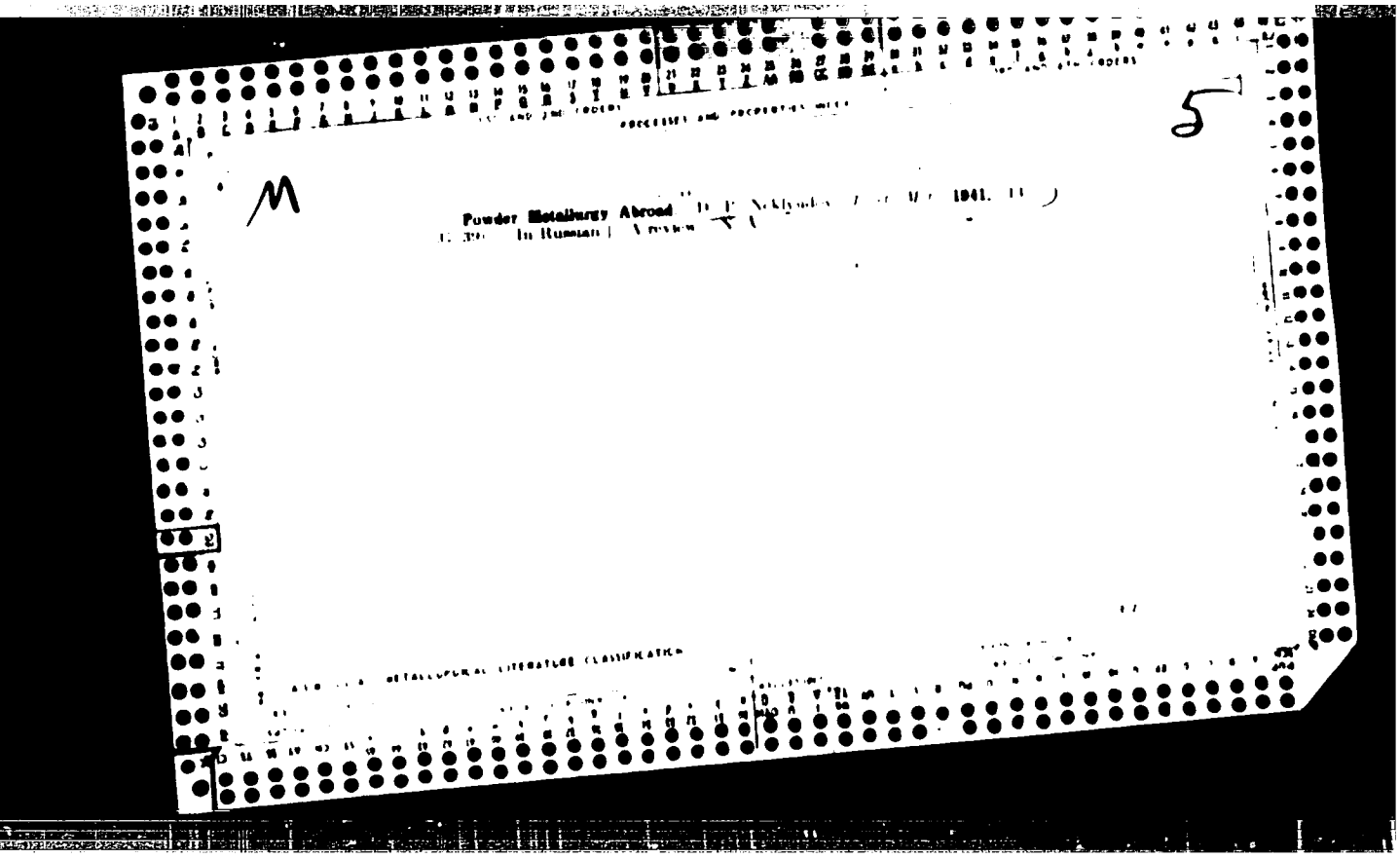
ABSTRACT : During 1952-1955, at Ger'kovskaya Agricultural Experiment Station in the conditions of light-gray forest steppe soils, the yield of peas increased by 37% after the application of Mo into the soil (1 kilogram/ha). Application of Mo under vetch (0.5 kilograms/ha) increased the hay yield by 41% and that of seeds by 21%. The beneficial after effect of the application of Mo into the soil was noted on the yield of the succeeding bean crop. Soaking the seeds in the solution of ammonium molybdate was also reflected very favorably on the yield of peas and vetch.

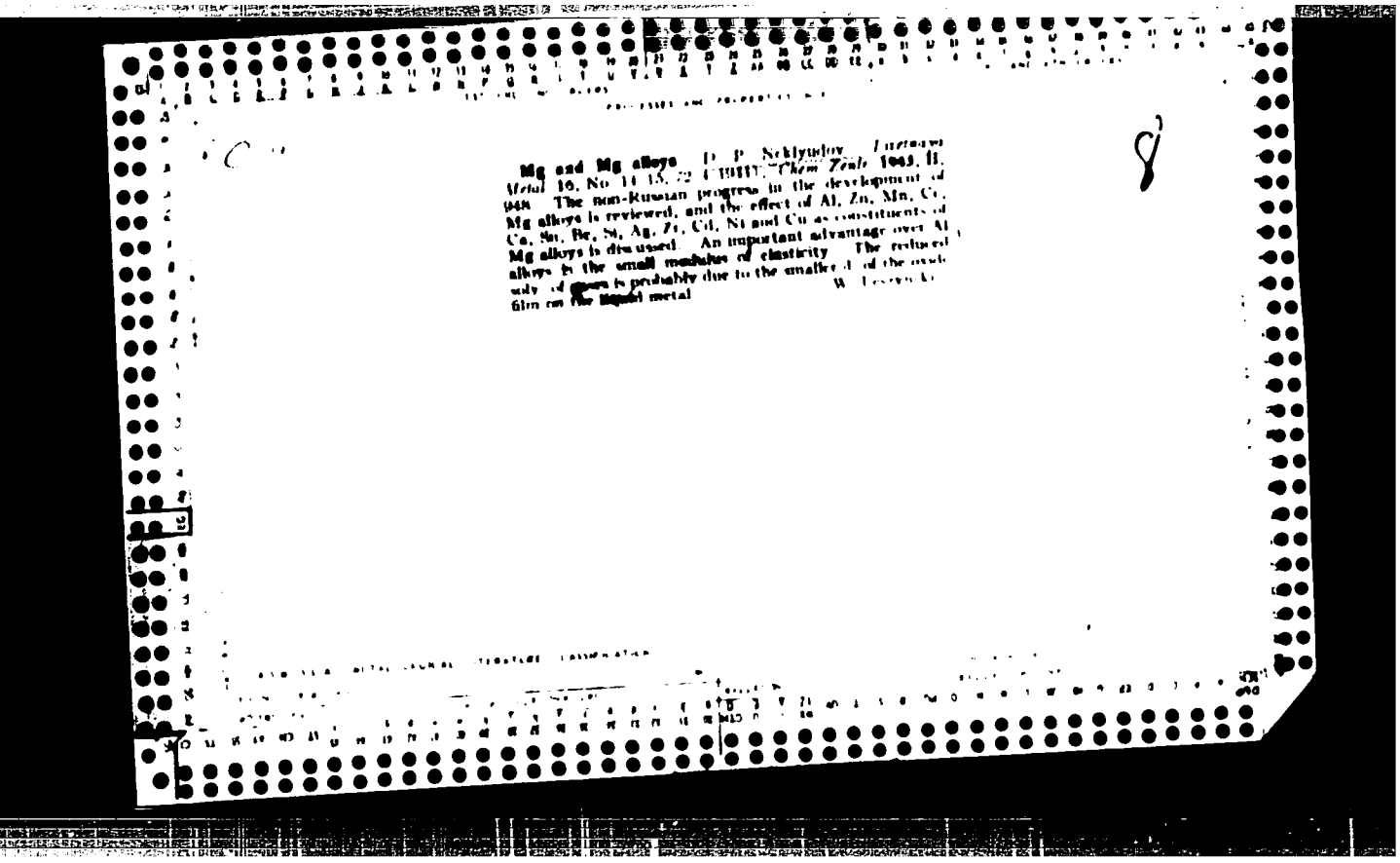
Card: 1/2

KHKLYUDOV, B.M., kand. sel'skokhozyaystvennykh nauk.

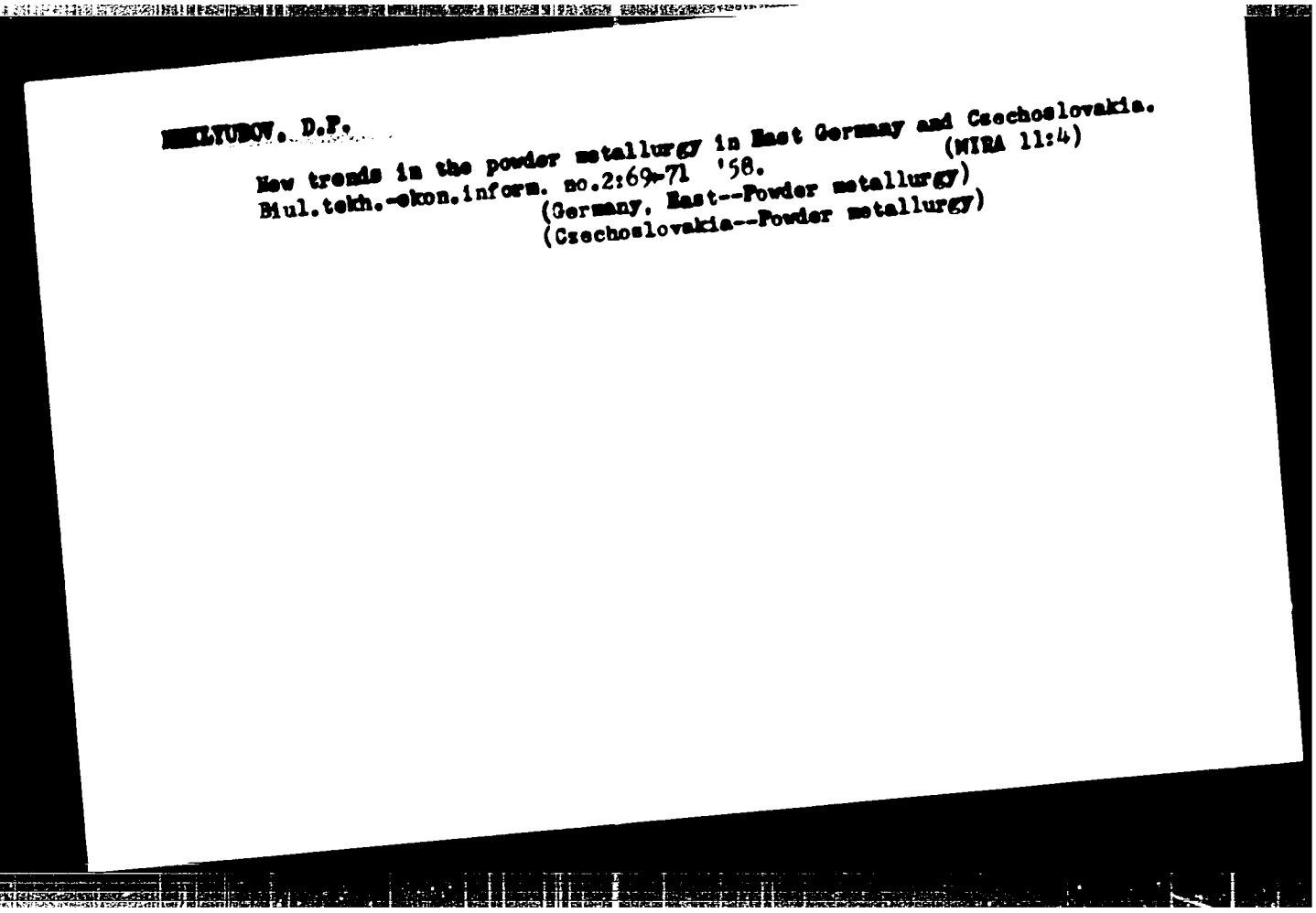
Molybdenum as an effective means of increasing the bean crop. (MIRA 11:3)
Zemledelie 6 no.2:70-72 '58.

1. Gor'kovskaya gosudarstvennaya sel'skokhozyaystvennaya opytnaya stantsiya.
(Molybdenum) (Legumes)





Mg and Mg alloys. P. P. Neklyudov. *Lit'einoe Proizvod.* 1948, No. 11, 15-22. (In Russian.) *Chem. Zent.* 1949, II, 16. The non-Russian progress in the development of Mg alloys is reviewed, and the effect of Al, Zn, Mn, Cu, Ca, Sn, Be, Si, Ag, Zr, Cd, Ni and Cu as constituents of Mg alloys is discussed. An important advantage over Al alloys is the small modulus of elasticity. The reduced ... of ... is probably due to the smaller ... of the oxide film on the liquid metal.



[redacted], D.P.

New trends in the powder metallurgy in East Germany and Czechoslovakia. (MIRA 11:4)
Biul.tekh.-ekon.inform. no.2:69-71 '58.
(Germany, East--Powder metallurgy)
(Czechoslovakia--Powder metallurgy)

LYUDOV, D.P.

Producing sponge iron in Bulgaria. Biul. tekh.-ekon. inform. no.3: 77-78 '58. (MIRA 11:6)

(Bulgaria--Iron--Metallurgy)

NEKLYUDOV, D.P.

Powder metallurgy in the United States and other countries.
Biul.tekh.-ekon.inform. no.6:87-89 '58. (MIRA 11:8)
(Powder metallurgy)

NEKLYUDOV, D.P.

Improving the smelting of wrought iron. Biul. tekhn.-ekon. inform. no.8:91-94 '58.
(Cast iron--Metallurgy) (MIRA 11:10)

NEKLYUDOV, D.P.

Making machine parts of metal powder. Biul.tekh.-ekon.inform. no.10:86-89 '58.
(Powder metallurgy) (MIRA 11:12)

NEKLYUDOV, D.P.

Preparation of iron-ore fine concentrates for blast-furnace smelting. Biul.tekh.-ekon.inform. no.5:84-89 '59.
(MIRA 12:8)

(Iron--Metallurgy)

S/[illegible]
A004/A001

AUTHOR: Neklyudov, D.P.

TITLE: The Ferrous and Non-Ferrous Metallurgies in the GDR (German Democratic Republic) and Their Prospects of Development

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, 1960, No. 6, pp. 77 - 79

TEXT: In his survey on the development of the metallurgical industry of the GDR the author states that in 1959 1,898,400 tons pig iron were produced in the GDR. The graph shows the development of forge pig production in the GDR.

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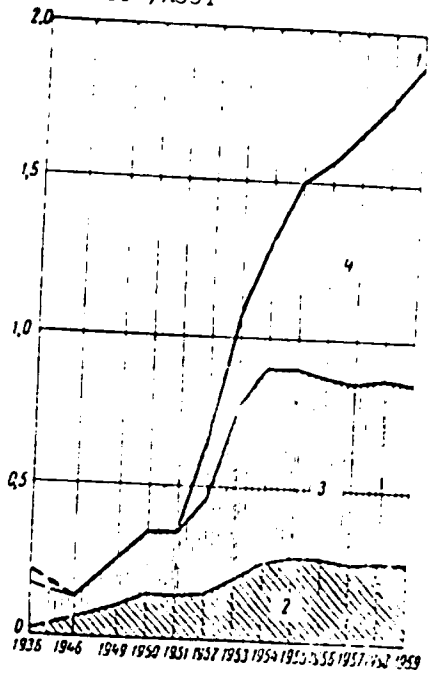
The Ferrous and Non-Ferrous Metallurgies in the GDR (German Democratic Republic) and Their Prospects of Development

S/193/60/000/006/015/015
A004/A001

Figure:

1 - forge pig; 2 - scrap; 3 - ore and other iron-containing materials of domestic origin; 4 - imported ore



Card 2/6

S/193/60/000/006/015/015
A004/A001

The Ferrous and Non-Ferrous Metallurgies in the GDR (German Democratic Republic) and Their Prospects of Development

The total output of forge pig of the ten blast furnaces in the GDR - six of them in Stalinstadt and four in Maxhuette - amounted to some 1.1 million tons in 1959. At Maxhuette a tubular Renn-furnace for the melting of sponge iron from low-grade ores and two agglomeration plants were installed. Between 1951 and 1954, 10 low-shaft furnaces were built, devised for the melting of pig iron from low grade ores of the Badenleben-Sommerschenburg deposits, containing on the average 20 - 23% Fe and 35% SiO_2. The lack of coking coal was partly compensated for by using coke with a high flame point made from domestic brown coal by a special process developed in the GDR (see Byulleten' tekhniko-ekonomicheskoy informatsii, 1959, No. 2, p. 82). The annual total output from low-shaft furnaces increased from 60,000 tons in 1954 to nearly 100,000 tons in 1959. The melting time in low-shaft furnaces, particularly with an oxygen blast enriched by 24.5% O_2 amounts only to one fifth of the time necessary for blast furnace meltings. It is planned to increase the production of ferrous metal during 1959-1965 by 78% compared with the 1958 figure, while the number of workers will only be increased by 9% and the labor productivity will rise by 55%. It is planned to increase the pig iron production in the GDR by

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The Ferrous and Non-Ferrous Metallurgies in the GDR (German Democratic Republic) and Their Prospects of Development

1965 to 2,150,000 tons per year. In 1959 3,207,400 tons of steel ingots were produced, most of it in open-hearth furnaces. The author points out that the amount of scrap available is far from being sufficient. Owing to this fact the amount of pig iron in the open-hearth charge was raised to 450-500 kg/ton. To avoid a decrease in the productivity of open-hearth furnaces due to a further increase of the pig iron percentage in the charge, scrap obtained from the USSR was added. The productivity of open-hearth furnaces amounted to 68,000 tons per furnace in 1959, i.e. an increase of 28% compared to 1954. Also the production of rolled steel was increased. To reduce the dependence of the GDR on imported rolled steel, it is planned to increase the share of domestic rolled steel to 67%. The productivity of rolling mills was raised due to their being redesigned. Besides, new rolling mills were put in operation in Brandenburg, Freithal and Risa. The author emphasizes however, that the demand of rolled products is not at all met by the present output. In 1959 2,487,500 tons of rolled steel were produced compared with 468,000 tons in 1949. It is planned to increase the output of steel ingots to 1.9 million tons in 1965, i.e. by 40% compared to 1959. By 1965 it is

The Ferrous and Non-Ferrous Metallurgies in the GDR (German Democratic Republic) and Their Prospects of Development

planned to produce 4.63 million tons of steel ingots, including 550,000 tons of electric steel. At the metallurgical "I.V. Stalin" Combine it is planned to equip a converter with oxygen top blast to obtain L-D steel. At the same Combine a high-efficient wide-strip mill, a cold-rolling mill, a tube-welding mill and a seamless tube mill are going to be erected. The total tube output is to be 300,000 tons by 1965. By 1965 the output of steel ingots from molten charges will increase by 20% with a further increase to 30%. Correspondingly the production of steel ingots from open-hearth steel will decrease to 70-60%. It is intended to increase the production of rolled steel from 1959 to 1965 by 51%, while the output of sections, sheet material, girders, etc. is to be increased 169%. By 1965 the share of high-quality steels in the total steel production is to attain 85.3%. It is intended to cut the number of steel grades from 550 to 300. According to the author, the productivity of new plants put into service lately, will amount to 3 million tons within the next years. From 1949 to 1959 the output of copper ore nearly doubled, owing to the operation of new equipment and an increase in the copper content of the ore from 12 to 16.4 kg/ton. The lead output in the Freiberg region increased during the last decade 3.6 times, while the tin output was raised

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The Ferrous and Non-Ferrous Metallurgies in the GDR (German Democratic Republic) and Their Prospects of Development

4.3 times. New deposits of non-ferrous metals, particularly copper ore, lead-zinc ore, tin ore and feldspar were detected as a result of extensive prospecting. The output of the metallurgical enterprises increased during the previous decade by 94%, while the production of semifinished items increased by 265%. Although the labor productivity of copper melting increased by 77% - for lead and tin the figures are 60% and 515% respectively - the growing demand of the national economy of the GDR in non-ferrous metals could not be satisfied by domestic raw materials. By 1963 the production of refined and electrolytic copper is to be increased by 150% compared to the 1958 figure. The development of the metallurgical industry in the GDR during the last decade affected the per-capita output of cast iron as shown in the table below:

Years	Cast Iron Production, thousand tons	Per-capita Cast Iron Production kg
1956	905	51.1
1957	978	56.1
1958	1,016	58.7

There is 1 figure and 4 non-Soviet references.

Card 6/6

KLYUDOV, D.P.

New cupola furnace of the institute of foundry practice in the Aachen School of Higher Learning. Lit. proizv. no.9:43-44 S '60. (MIRA 13:9)

(Aachen--Cupola furnaces)

NEKLYUDOV, D.P.

Investigating the durability of steel ingot molds for centrifugal pipe casting. Lit. proizv. no.9:44-46 S '60. (MIRA 13:9)

(Ingot molds--Testing) (Centrifugal casting)

NEKLYUDOV, D.P.

Dust removal and heat regeneration from exhaust gases from converters operating with oxygen blow [from foreign publications]. Stal' 20 no.6:507-510 Je '60. (MIA 14:2)

(Converters) (Dust collectors)

NEKLYUDOV, D.P.

Heat-resistant alloys for precision casting. Lit. proizv. no. 5:47 My '61. (MIRA 14:5)
(Precision casting) (Heat-resistant alloys)

NEKLYUDOV, D.P.

Modern highly heat-resistant steels and alloys [from "Metal Treatment and Drop Forging," no.172, 1960; Transactions of the SAE, no.805, 1955; "Metal Progress," no.4, 1959]. Stal' 21 no.5:451-453 My '61. (MIRA 14:5)

(Heat-resistant alloys)

NEKLYUDOV, Dmitriy Petrovich; FISHER, A.Ya., red.; MARKOV, P.V., ved. red.

[The rare-earth metals: yttrium, scandium and the lanthanum group; review of foreign practices] Redkozemel'nye metally - ittrii, skandii i lantanoidy; obzor zarubezhnoi tekhniki. Moskva, Gos.nauchno-issl. in-t nauchn. i tekhn. inform., 1962. 68 p. (Tema 12) (MIRA 17:3)

ALEKSEYEVSKIY, D.

Molybdenum disulfide and its use abroad. Mashinostroitel' no.11: 42 N '64 (MIRA 18:2)

VIRABOV, Ruben Vagarshakovich,; CHUCHIN, Yevgeniy Fedorovich,; NEKLYUDOV, G.I., dots., retsenzent,; ROZENBLIT, Ya. M., inzh., red.; [illegible], M.Ye., red.; PUKHLIKOVA, N.A., tekhn. red.

[Using semiautomatic milling machines in cutting grooves and inscriptions] Frezerovanie fasonnykh vyemok i nadpisei na polusvtomatakh. Moskva, Gos.izd-vo obor. promyshl., 1958. 138 p. (MIRA 11:12)

(Milling machines)

25 (5)

AUTHORS: Volkov, N. N., Engineer, Meklyudov, G. I., Docent

SOV/119-59-7-8/18

TITLE: From Automatic Machines to an Automatic Plant

PERIODICAL: Priborostroyeniye, 1959, Nr 7, pp 21 - 22 (USSR)

ABSTRACT: In the Collective KB for clock manufacture and in the second Moscow clock factory, work is being carried out with a view of increasing the operating efficiency of the clock- and watch industry. In the course of this work an automatic device of the type T-240 was developed for the working of half-finished material; the speed of excenter presses could be increased up to 500 r.p.m., a vibrational material supplying device was introduced, and an instrument of the type P-34 for automatic control was worked out. The old production system in the clock factory was then briefly outlined, and the newly worked-out technological process for the production of plate bars, which consists of 36 operations carried out on 34 automatic devices of 11 different types. The analogous old process consisted of 60 - 80 operations carried out on 63 machines. The advantages offered by the new production assembly line are discussed, and it is said that for the projecting of automatic devices for surface

Card 1/2

working and for fashioning the third quarter of the year is intended to be used. The coming year is reserved for the projecting of automatic profile cutters. In the last part of this paper individual automatic devices are discussed. Figures 1 - 3 show an 18-position automatic drilling machine, an 18-position automatic threading die, and a special automatic drilling- and threading machine. There are 3 figures.

PHASE I BOOK EXPLOITATION SOV/5291

Soveshchaniye po kompleksnoy mekhanizatsii i avtomatizatsii tekhnologicheskikh protsessov v mashinostroyenii. 2d, Moscow, 1956

Avtomatizatsiya mashinostroitel'nykh protsessov. t. III: Obrabotka rezaniyem i obshchiye voprosy avtomatizatsii (Automation of Machine-Building Processes. v. 3: Metal Cutting and General Automation Problems) Moscow, Izd-vo AN SSSR, 1960. 296 p. (Series: Its: Trudy, t. 3) 4,700 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya.

Resp. Ed.: V. I. Dikushin, Academician; Ed. of Publishing House: V. A. Kotov; Tech. Ed.: I. F. Kuz'min.

PURPOSE: This collection of articles is intended for technical personnel concerned with the automation of the machine industry.

COVERAGE: This is Volume III of the transactions of the Second Conference on the Full Mechanization and Automation of Manufacturing Processes in the Machine Industry, held September 25-29, 1956. The transactions have been published in three volumes. Volume I deals with the hot pressworking of metals, and volume II, with the actuation and control of machines. The present volume deals with the automation of metal machining and work-hardening, and with general problems encountered in automation. The transactions on the automation of metal-machining processes were published under the supervision of F. S. Dem'yanok and A. N. Karatygin, and those on the automation of work hardening processes, under the supervision of E. A. Satel' and R. O. Yakobson. No personalities are mentioned. There are no references.

Automation of Machine-Building Processes (Cont.) SOV/5291

Card 4/ [illegible]

18 8200

S/126/61/011/001/010/019
E193/E483

AUTHORS: Garber, R.I., Neklyudov, I.M. and Perunina, L.M.

TITLE: Work-Hardening of Bismuth Under Conditions of Programmed Loading

PERIODICAL: Fizika metallov i metallovedeniye, 1961, Vol.11, No.1, pp.108-114

TEXT: Increasing the rate of deformation, or lowering the temperature, brings about an increase in the work-hardening exponent; this effect is attributed to the fact that under these conditions duration of the relaxation process during deformation decreases. At relatively higher temperatures, the work-hardening exponent decreases owing to increased intensity of relaxation. However, it has been shown by Bol'shanina (Ref.1) that the yield point of twinned calcite increases five times after annealing, while Garber et al (Ref.3) have found that the yield point of iron, twinned at the temperature of liquid helium, also rapidly increases during subsequent heating to room temperature. The object of the present investigation was to elucidate the mechanism of these effects by studying work-hardening of bismuth. Since twinning is

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the predominant mechanism of plastic deformation of this metal, it was assumed that its mechanical properties would be similar to those of twins in calcite and iron. Refined bismuth was used for the preparation of the experimental test pieces, made by the Bridgeman method, in the form of rods (180 mm long, 5 mm in diameter) with spherical ends, and subsequently vacuum-annealed at 200°C for 3 h. The experiments consisted in straining the test pieces in tension at room temperature under controlled conditions. The tensile force was applied by means of weight, hung at the lower end of the specimen, the usual precautions having been taken to ensure axial loading. The load was increased in a pre-determined fashion by means of an automatic dispenser from which small balls dropped at regular intervals into a container which constituted the loading weight. Each load increment did not exceed 6×10^{-3} g/mm^2, and the average rate of loading was maintained constant throughout each experiment, the rates applied varying between 2 and 10 g/mm^2/h. It was found in the course of experiments that it was possible to select a certain critical rate of loading

S/126/61/011/001/010/019
E193/E483

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σ_k at which the rate of deformation $\dot{\varepsilon}$ remained constant within a wide interval of applied stress. This can be seen in Fig.2, where elongation ε (10^3%, left-hand scale) and stress σ (g/mm^2, right-hand scale) are plotted against time t (hours). To make sure that the test piece had, in fact, undergone plastic deformation, ε was measured while the load was gradually removed. The results (broken curves in Fig.2) show that although some elastic recovery had taken place, more than a half of the elongation, attained at the end of the loading cycle, was due to plastic deformation. Fig.3 shows two $\dot{\varepsilon}(\varepsilon)$ curves, constructed for two identical specimens, loaded at $\sigma < \sigma_k$, the upper and lower graphs relating to specimens loaded at 2.3 and 4.5 g/mm^2/h, respectively. It will be seen that in both cases, the work-hardening exponents $\partial\sigma/\partial\varepsilon$ remained constant. The results of the next series of experiments are reproduced in Fig.4, where elongation ε (%, left-hand scale) and stress σ (g/mm^2, right-hand scale) are plotted against time t (hours). Graph 1, $\sigma(t)$ and 2, $\varepsilon(t)$ relate to a specimen tested in the following way:

Work-Hardening of Bismuth Under Conditions of Programmed Loading

the load was applied at a rate $\dot{\sigma} = 8$ g/mm^2/h until a certain σ_m was reached at which the $\varepsilon(t)$ relationship ceased to be linear; beginning from this moment, the load was maintained constant at σ_m for 24 h during which time the test piece continued to deform owing to creep; the rate of creep during this period remained constant and was practically the same as the rate of strain during the preceding period. For comparison, Fig.4 shows a creep curve (graph 3) of another specimen which has been loaded to σ_m in 20 min. It will be seen that in this case the total deformation was higher than that of the test piece strained under slow rate of loading, and that the rate of creep under this constant stress σ_m was also considerably higher. The interesting fact is that in the case of specimens, work-hardened during deformation at slow rate of loading and then re-loaded at a fast rate to σ_m, the rate of creep decreased 2 to 3 times (see right-hand branch of graph 2, Fig.4). It was also found that test pieces, work-hardened by deformation at slow loading rates, did not lose their strength after ageing (with the load taken off) at room temperature. The results described above confirm the hypothesis put forward by Garber (Ref.4).

Work-Hardening of Bismuth Under Conditions of Programmed Loading

according to whom the observed effects are due to diffusion strengthening of twins which is brought about by aggregation of vacancies and impurity atoms at the twin boundaries. In cases when twins do not traverse the cross-section of the test piece, diffusion strengthening may inhibit further growth of the twins even at relatively high loads. It was for this reason that no traces of twins were observed on the surface of the test pieces used in the experiments described above and that deformation took place under conditions of equilibrium, as indicated by the absence of discontinuities on the $\varepsilon(t)$ curves. Different results were obtained when a test piece in the form of a single crystal, 1.2 mm in diameter, was used. This is illustrated by graphs in Fig.5, where $\Delta\ell$ (microns, left-hand scale) and σ (g, right-hand scale) are plotted against time t (hours). Sudden jumps on the $\Delta\ell(t)$ curve for a test piece under load which increased at a constant rate indicate that work-hardening, caused by diffusion-induced enrichment of the twin boundaries in vacancies and impurity atoms, cannot prevent the formation and growth of twins in a specimen of

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this size. In the case of high quality single crystals of small cross-section area, a twin nucleus (e.g. an elastic twin) can rapidly change into a twin intersecting the cross-section of the specimen, as a result of which deformation of the specimen proceeds in jumps, since the resistance to deformation (by twinning) at the moment of the formation of a twin decreases several times. The $\Delta \ell(t)$ and $\sigma(t)$ curves for such a specimen (a single crystal with the gauge length of 150 mm and rectangular cross-section 3 x 2.5 mm) are shown in Fig.6. In spite of very slow rate of loading employed, it was found impossible to obtain gradual deformation (i.e. smooth $\Delta \ell(t)$ curves) of the specimens, on the surface of which evidence of twins, intersecting the cross-section, was found after completion of the loading cycle. That these effects were observed in a rectangular specimen can be attributed to non-uniform distribution of stresses over its cross-section and to the high quality and homogeneity of its crystal structure. Finally, in order to elucidate the nature of the processes leading to work-hardening of specimens deformed at slow and fast rates of

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S/126/61/011/001/010/019
E193/E483

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loading, X-ray diffraction patterns of test pieces, loaded to the same σ_m (yield point) but at different rates of loading (8 and 1080 g/mm^2/h), were obtained. The pattern obtained for the slowly loaded specimen hardly differed from that obtained for an undeformed material, whereas a very different pattern was obtained on the specimen deformed at a fast rate of loading. This indicated that work-hardening under normal conditions of loading (within the elastic region) is associated with fragmentation of the crystal, whereas all other factors being equal, deformation under conditions of slow rates of loading does not affect the crystal structure or affects it only in the regions of lowest strength which constitute a minute fraction of the total volume of the crystal. Acknowledgments are made to I.M.Fishman and S.T.Shavlo, who participated in this work. There are 9 figures and 11 Soviet references.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UkrSSR
(The Physicotechnical Institute AS UkrSSR)

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S/126/61/011/001/010/019
E193/E483

Work-Hardening of Bismuth Under Conditions of Programmed Loading

SUBMITTED: May 25, 1960

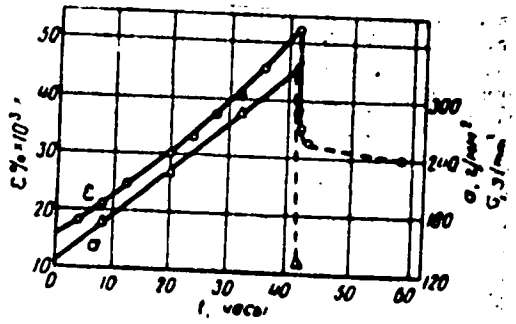

Рис. 2. Графики σ(t) и ε(t) при программном нагружении.

Fig.2.

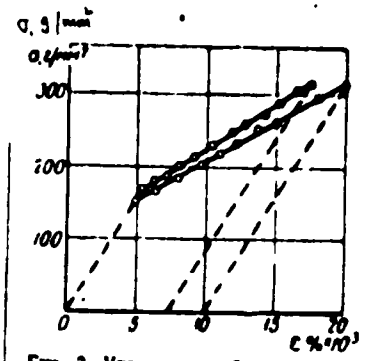

Рис. 3. Упрочнение образцов висмута при программном нагружении.

Fig.3.

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E193/E483

Work-Hardening of Bismuth Under Conditions of Programmed Loading

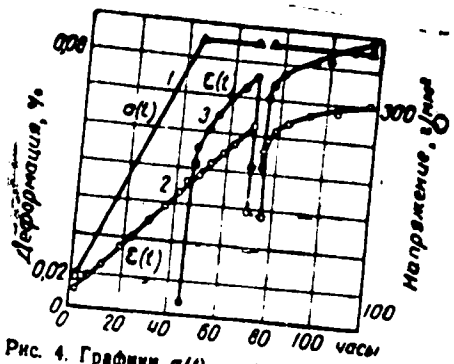

Рис. 4. Графики σ(t) и ε(t) при программном и быстром нагружении образцов висмута до напряжения σ_m.

Fig.4.

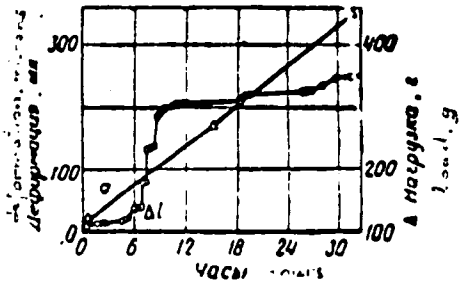

Fig.5.

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Work-Hardening of Bismuth Under Conditions of Programmed Loading

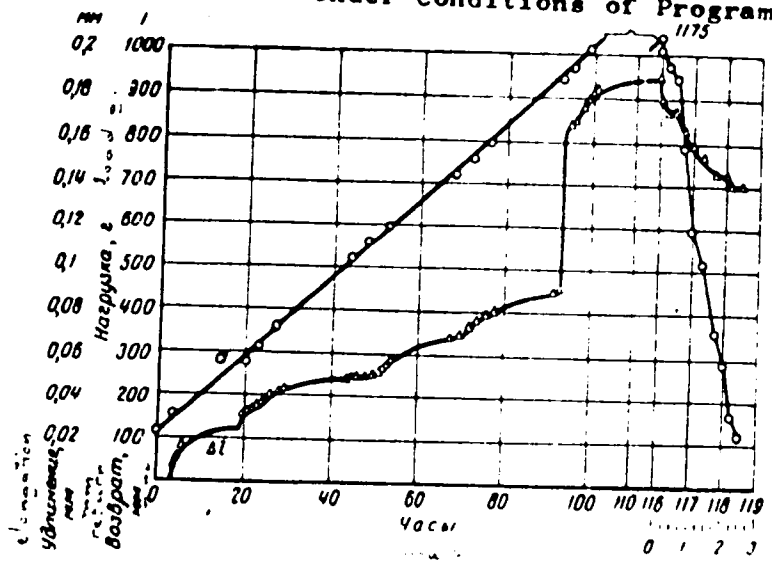

Fig.6.

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GARBER, R.I.; GINDIN, I.A.; MOGIL'NIKOVA, T.T.; NEKLYUDOV, I.M.

Internal friction of iron hardened by programming. Fiz. met. i metalloved. 18 no.3:443-447 S '64. (MIRA 17:11)

1. Fiziko-tekhnicheskiy institut AN UkrSSR.

S/032/62/028/001/014/01
B116/B108

AUTHORS: Garber, R. I., Gindin, I. A., Neklyudov, I. M., Chechel'nitskiy, G. G., and Stolyarov, V. M.

TITLE: Device for programmed metal hardening

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 1, 1962, 107 - 1[illegible]

TEXT: A device has been designed for programming the load on samples. It permits determining the effect of the charging rate on the material properties up to 800°C in a vacuum of 10^{-6} mm Hg or in inert gases. The charging rate can be increased from 10 g/mm^2 per hr to 3 kg/mm^2 per hr. Moreover, rates of up to 80 kg/mm^2 per hr are possible. The maximum load is 350 kg. The sample elongation (up to 4 - 5 mm with an error of 0.5 μ) is measured with an optical strain gauge. Reduction of the charging rate to values corresponding to diffusion hardening low[illegible] the total deformation and the rate of steady creep. The device [illegible] operates as follows: Dynamometer spring (6) is compressed by the reducing gear (7). The charging rate is regulated by varying the periodic operation of the motor (8) (PD-09 (RD-09)-type) driving the [illegible]

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B116/B108

Device for programmed metal hardening

(7). The sample is heated by a tubular furnace with molybdenum coil. The temperature is regulated by an ЭПД-12 (EPD-12) electronic potentiometer. There are 4 figures and 6 Soviet references.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk USSR (Physico-technical Institute of the Academy of Sciences UkrSSR

Fig. 1. Diagram of device for programmed hardening.
Legend: (1) sample; (2) and (3) fastenings; (4) cross piece; (5) [illegible] bars; (6) dynamometer spring; (7) reducing gear; (8) motor; (9) [illegible] bearing joint; (10) indicator; (11) mains connection; (12) base [illegible] (13) vacuum chamber; (14) sylphon; (15) limiter; (16) to pump.

Card 2/3

S/032/62/028/001/014/017
B116/B108

Device for programmed metal hardening

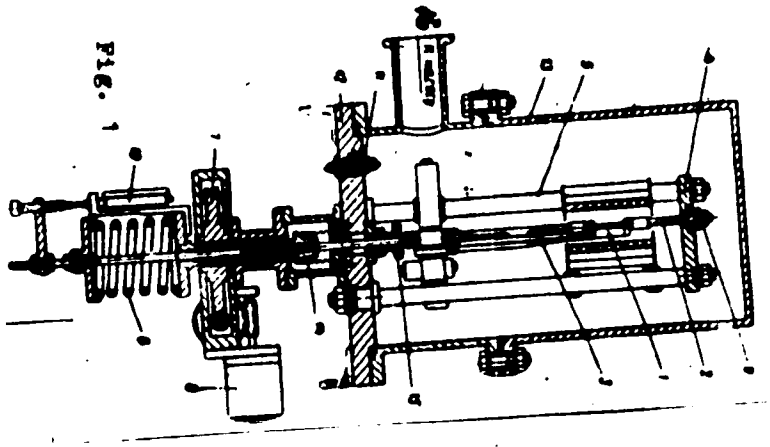

Fig. 1

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S/126/63/015/003/022/025
E073/E320

AUTHORS: Garber, R.I., Gindin, I.A. and Meklyudov, I.M.

TITLE: Influence of "programmed strengthening" on the creep and recrystallization of iron at elevated temperatures

PERIODICAL: Fizika metallov i metallovedeniye, v. 15, no. 3, 1963, 473- 475

TEXT: In earlier investigations on calcite, bismuth and iron, the authors found that in addition to ordinary strengthening caused by lattice distortions during the process of plastic deformation under a continuous load, there is also "programmed strengthening" due to diffusion-blocking and strengthening of weak and overloaded lattice nodes. This produces an increase in the yield point, plasticity at low temperatures and an increased creep resistance. So far, an improvement in the mechanical properties has been observed only at temperatures lower than or equal to the temperature of the programmed treatment. In the work described here, specimens of Fe (0.03% C) were polished and chemically etched, vacuum-annealed at 880 °C for 3 hours and then slowly cooled. After "programmed loading" up to 8 kg/mm² at 300 °C at

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a rate of 90 g/mm^2/h , the specimens were subjected to a 100-hour creep test at 400 °C with a load of 7 kg/mm^2 . The creep rate of previously program-loaded specimens was significantly lower (about 5.6 x 10^{-5} %/h) both in the initial and in the steady-state stages) than that of specimens to which the final load had been applied quickly (1.3 x 10^{-4} %/h in the steady-state section). This indicates that overheating does not eliminate the effect of increased resistance to creep of program-strengthened specimens. Microstructures are reproduced of both types of specimens after annealing at 830 °C for 3 hours; of specimens loaded at 400 °C with a load increasing to 16 kg/mm^2 whereby the rate of increase varied between 220 and 6 x 10^3 g/mm^2/h; of specimens loaded quickly. The residual deformations were 1.3 and 1.6%, respectively. The microstructure of specimens which were subjected directly to the final load showed signs of selective recrystallization, whilst the microstructure of the program-loaded specimens was almost the same as prior to annealing. The authors consider the results as a further proof that program-loading leads to a more

equilibriated stable structure in that the strengthening does not seem to be accompanied by an increase in the free energy of the crystal. There are 3 figures.

SUBMITTED: August 15, 1962

Card 3/3

L 18049-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3002890 S/0126/63/015/006/0908/0913

AUTHORS: Gorbov, M. I.; Glazkin, I. A.; Neklyudov, I. M.

TITLE: Programmed hardening of commercial iron

SOURCE: Fizika metallov i metallovedeniye, v. 15, no. 6, 1963, 908-913

TOPIC TAGS: programmed hardening, iron, mechanical property

ABSTRACT: One of the possible methods for improving mechanical properties of solid bodies consists of diffusive blocking and strengthening of weak or over-stressed parts of a specimen. Such parts may develop shearing, sliding surfaces, twinning bands, or dislocation sources. This method was called "the programming of hardening." The device used in the programming procedure is described. It allows the stretching of a specimen at high temperatures and at very small rates of load increase. The commercial iron samples that underwent a programmed hardening at 200C were studied. The tensile test was conducted at the temperature of liquid nitrogen and also at room temperature. The creep test was also conducted at 200C. Preliminary deformation at high temperatures and low rates of loading resulted in: 1) increase of flow limit and hardening modulus; 2) increase in plasticity at the temperature of liquid nitrogen; 3) a substantial decrease in creep velocity;

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ACCESSION NR: AP3002890

3

(-) elimination of creep at 300C. It is concluded that the observed effects are due to a diffusive hardening of weak and overstressed regions in the samples. The authors express their appreciation to V. M. Stolyarov and G. G. Chechel'nitskiy for their help in the construction of this device. Orig. art. has: 6 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN USSR (Institute of Physics and Technology, Academy of Sciences, UkrSSR)

SUBMITTED: 26Jun62 DATE ACQ: 23Jul63 ENCL: 00

SUB CODE: ML NO REF SOV: 006 OTHER: 001

Card 2/2

1c

L 17[illegible]-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b)/EWA(c) IJP(c) JD/HW
ACCESSION NR: AP5002348 S/0126/64/018/006/0904/0908

AUTHOR: Garber, R. I.; Gindin, I. A.; Zalivadnyy, S. Ya.; Mikhaylovskiy, V. M.; Malik, A. K.; Oklyudov, I. M.

TITLE: Effect of programmed hardening on creep of polycrystalline zinc and stability during cyclic heat treatment

SOURCE: Fizika metallov i metallovedeniye, v. 18, no. 6, 1964, 904-908

TOPIC TAGS: polycrystalline zinc, creep, programmed hardening, heat treatment, cyclic heat treatment

ABSTRACT: The effect of programmed hardening (hardening by controlled application of stress at slow rates) on the creep of polycrystalline zinc at room temperature and on its resistance to forming during cyclic heat treatment was studied. The linear deformation of annealed polycrystalline zinc and of samples subjected to loading ($1\text{-}6\times10^{-4}$ kg/mm^2/min) and to loading beyond the yield point (2.5 kg/mm^2/min) was compared. The elongation of the programmed samples

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L 36625-66
ACCESSION NR: AP5002348

was less than in the annealed and rapidly stressed samples. was reduced two times as the programmed rate was decreased from 5 to 1.5 x 10^{-4} kg/mm^2. Samples subjected to normal treatment were less resistant to heating-cooling cycles than programmed samples. The hardening increased as the maximum temperature of the cycle was reduced [illegible] maximum [illegible] ature approached the melting temperature (0.9T_m K). [illegible] les was less than in those otherwise deform[illegible] [illegible] sity as showed slip bands and the formation of substru[illegible] [illegible] number of the grains. Small migration of the boundaries occurr[illegible] [illegible] ter programmed and after ordinary hardening prior to thermal cycling, after that the migration in the programmed samples was much less noticeable. Thus programmed hardening of polycrystalline zinc increased its creep strength and its resistance to forming during cyclic heat treatment. Orig. art. has: 3 figures and 1 table

ASSOCITTION: Fiziko-tekhnicheskiy institut AN UkrSSR (Physical-technical Institute AN UkrSSR)

SUBMITTED: 01Aug63 ENCL: 00 SUB CODE: MM
NR REF SOV: 009 OTHER: 001

Card 2/2

L 6628-65 EWT(m)/EWP(k)/EWP(q)/EWP(b) Pf-4 ASD(m)-3/ASD(f) JD/EW

ACCESSION NR: AP4032894 S/0286/64/000/008/0027/0027

52

AUTHOR: Garber, R. I.-G.; Gindin, I. A.; Nekiyudov, I. M.

TITLE: Method for the thermomechanical treatment of parts of metals and alloys

SOURCE: Byulleten' izobreteniy i tovarny*kh znakov, no. 8, 1964, 27

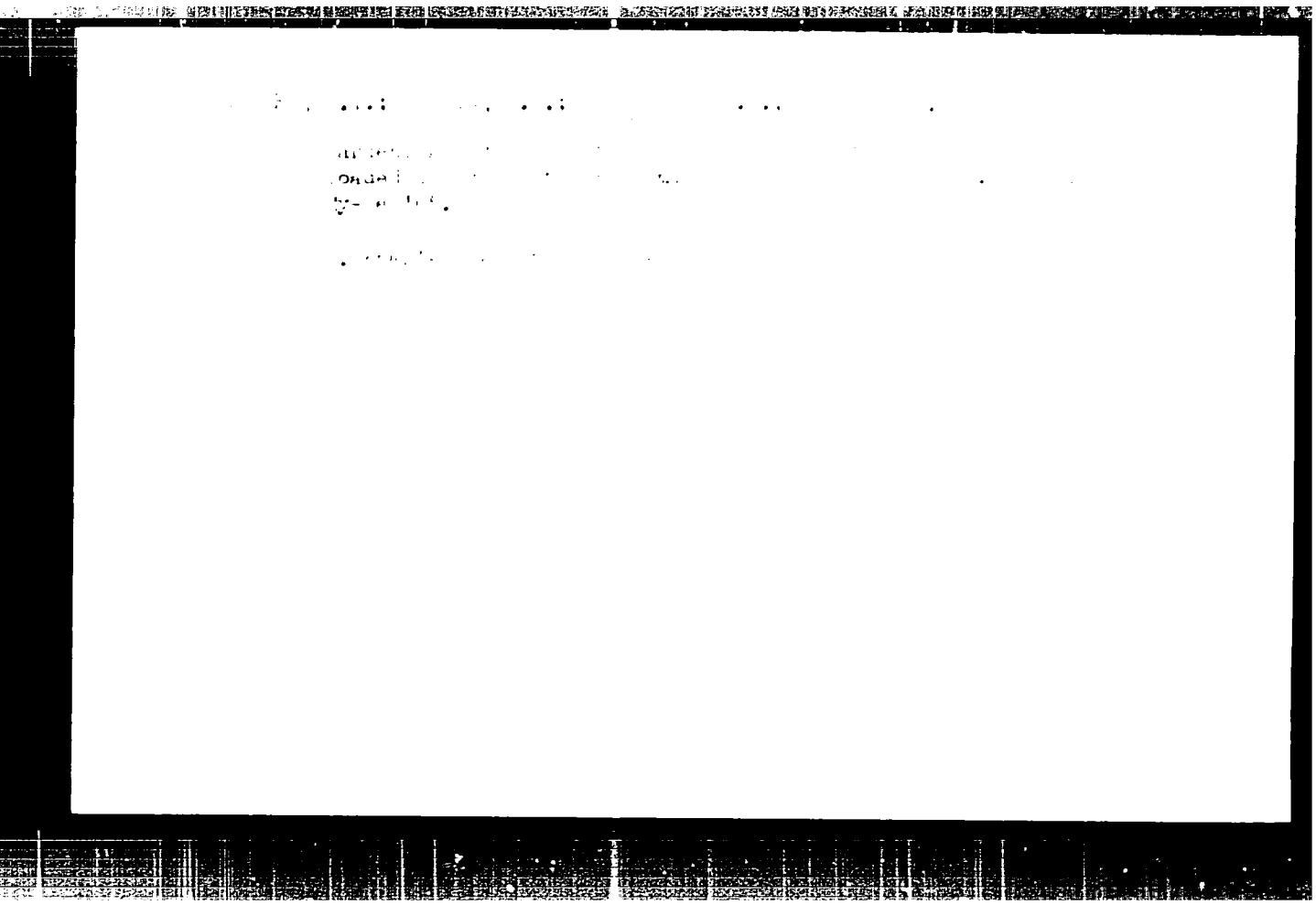
TOPIC TAGS: thermomechanical treatment, alloy mechanical property, high temperature strength, alloy thermomechanical treatment, plastic deformation, alloy plastic deformation, strain hardening

ABSTRACT: A method for the thermomechanical treatment of articles made of metals or alloys, consisting of the preliminary plastic deformation of the article at the latter's working temperature, and distinguished by the fact that, for the purpose of improving the mechanical properties at increased temperatures, the plastic deformation is accomplished at the maximum permissible stresses at which the rate of strain maintains a constant value. Orig. art. has: no graphics.

ASSOCIATION: none

SUBMITTED: 28Apr62 ENCL: 00

Card 1/1 SUB CODE: MM NO REF SOV: 000 OTHER: 000



GINZBURG, I.A.; BERKUTOV, I.M.; [illegible]

Influence of grain size on the effect of iron hardening [illegible] programmed loading. Fiz. met. i metallov. [illegible] Ap '64.

1. Fiziko-tekhnicheskiy institut AN [illegible].

L 24575-66 EWT(m)/T/EWP(t) IJP(c) JD/JH
ACC NR: AP6009671 SOURCE CODE: UR/0181/66/008/003/0842/0845

AUTHORS: Bezuglyy, P. A.; Gindin, I. A.; Neklyudov, I. M.; Rabukhin, V. B. 58 B

ORG: Physicotechnical Institute of Low Temperatures AN UkrSSR, Kharkov (Fiziko-tekhnicheskiy institut nizkikh temperatur AN UkrSSR)

TITLE: Securing of dislocations on point defects during programmed loading of aluminum single crystals

SOURCE: Fizika tverdogo tela, v. 8, no. 3, 1966, 842-845

TOPIC TAGS: hardening, crystal dislocation phenomenon, crystal defect, static load test, ultrasonic absorption, aluminum, single crystal

ABSTRACT: This is a continuation of earlier work (FTM v. 18, 443, 1964 and earlier papers) dealing with various hardening mechanisms that can be activated by varying the rate of increasing an external stress on a crystal and the possibility of programming the hardening on the basis of such mechanisms. The present paper presents the re-

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L 24575-66

ACC NR: AP6009671

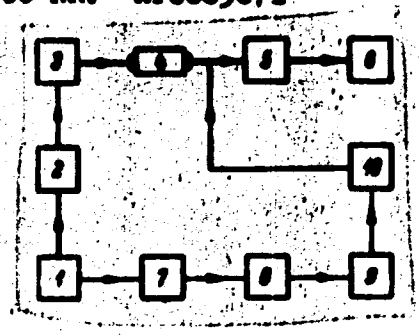

Fig. 1. Block diagram of pulsed ultrasonic installation. 1 -- Master pulse generator, 2 -- modulator, 3 -- high frequency generator, 4 -- sample, 5 -- superheterodyne receiver, 6 -- oscilloscope, 7 -- controlled pulse delay, 8 -- pulse generator, 9 -- standard hf generator, 10 -- attenuator.

sults of an investigation of the dependence of absorption of longitudinal ultrasound on the level of prestressing attained during programmed (slow) hardening of single-crystal aluminum, and the results obtained with fast loading are also given for comparison. Both annealed and non-annealed samples were tested. The absorption was measured by comparing two successive reflected pulses, using an ultrasonic pulsed setup (Fig. 1). All measurements were made with a longitudinal compression-rarefaction wave operating at 72 Mc. From

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ACC NR: AP6009671

the obtained plots of the ultrasound absorption against the loading it is concluded that securing of dislocations during the earlier stages of the programmed loading is possible. At large degrees of deformation, a maximum of ultrasound absorption is observed. The results are interpreted from the point of view of the dislocation theory of absorption developed by A. Granat and K. Lucke (J. Appl. Phys. v. 28, 583, 1956). Orig. art. has: 3 figures, 5 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 28Jul65/ ORIG REF: 006/ OTH REF: 001

Card 3/3 BK

ACC NR: AP6017310 (N) SOURCE CODE: UR/0126/66/021/005/0774/0778

AUTHORS: Gindin, I. A.; Nekrasov, I. M.; Finkel', V. A.; Shubin, Yu. V.

ORG: Physico-technical Institute, AN Ukr SSR (Fiziko-tekhnicheskiy institute AN Ukrssr)

TITLE: Effects of programmed loading on the plasticity of beryllium monocrystals

SOURCE: Fizika metallov i metallovedeniye, v. 21, no. 5, 1966, 774-778

TOPIC TAGS: beryllium, metal property, metal crystal, crystal property, plasticity

ABSTRACT: The effects of preliminary programmed loading at 400C on the subsequent mechanical properties of beryllium monocrystals at room temperature were investigated. One set of specimens (99.6% pure with base plane oriented at 45° to the loading axis) was loaded (0, 5, 6, and 10 kg/mm^2) and tested in compression. Another set (99.9% pure, base plane and $\langle 10\bar{1}0 \rangle$ direction coincided with loading axis) was loaded (0, 4.3, and 5 kg/mm^2) and tested in tension. It was found that the room temperature yield stress σ_s and relative compressibility ε were 9.6, 11.3, 11.5, and 9.8 kg/mm^2 and 10.7, 17.7, 24.7 and 17.2% respectively for the preloading conditions of the first set of specimens and 14.5, 16.1, and 12.4 kg/mm^2 and 29, 36, and 39.8% respectively for the second set. Elongation was 54, 53, and 64% respectively for the second set. X-ray diagrams of the preloaded monocrystals are also presented. Orig. art. has: 5 figures.

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MEKLYUDOV, M.I., mayor med.sluzhby

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(NOVOCAINE) (INFLAMMATION)

NEKLYUDOV, K. K., Engineer

"Organization of Construction Work in Laying Gas Pipelines in City Conditions." Sub 11 Jun 51, All-Union Correspondence Polytechnic Inst, Ministry of Higher Education USSR

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SO: Sum. No. 480, 9 May 55

NEKLYUDOV, M. K.

"Packing of soil in filling trenches by a ramming vibration machine," Construction, 1952.

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NEKLYUDOV, Mikhail Konstantinovich; PUL'NAKOV, Nikolay Viktorovich; RYAKHIN, Viktor Aleksandrovich; VORONTSOV-VEL'YAMINOV, N.P., inzhener, redaktor; BURMISTROV, G.N., redaktor; RAKOV, S.I., tekhnicheskiy redaktor

[Assistant to the machinist in charge of diesel and electric building excavators] Pomoshchnik mashinista dizel'nykh i elektricheskikh stroitel'nykh ekskavatorov. Moskva, Vses.uchebno-pedagog. izd-vo Trudrezervizdat, 1955. 439 p. (MLRA 9:3)
(Excavating machinery)

[redacted], M. S., kandidat tekhnicheskikh nauk

Digging trenches with vertical walls. Stroitel' ? no.4-5:21 Ap-My '56.
(Excavation) (MLRA 10:1)

NEKLYUDOV, M., inzh.

Inventory bracing for fixing trenches. Stroitel' no.12:13 D '57.
(Pipelines) (MIRA 11:2)

MEKLYUDOV, M.K., kand. tekhn. nauk.

Reusable supports for ditches. Stroi. prom. 36 no.3:17-23 Mr '57.
(Earthwork) (MIRA 11:3)

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Improving soil packing by the method of rolling. Prom. stroi. 36 no.11:15-17 N '58. (MIRA 12:1)
(Earthwork)

NEKLYUDOV, M.K., kand.tekhn.nauk, starshiy nauchnyy sotrudnik; MUNITS, A.P., red.izd-va; TEMKINA, Ye.L., tekhn.red.

[Instructions for controlling the compaction of soils in constructing residential and public buildings] Ukazaniia po kontsoliu za uplotneniem gruntov v promyshlennom i grazhdanskom stroitel'stve. Moskva, 1959. 20 p. (MIRA 13:6)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu. 2. Laboratoriya zemlyanykh rabot Nauchno-issledovatel'skogo instituta organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu (NIIOMTP) (for Neklyudov).
(Soil stabilization)

NEKLYUDOV, M.K., kand. tekhn. nauk

Using hydraulic and vibration methods in stabilizing soil in trenches. Prom. stroi. 37 no.11:44-46 N '59. (MIRA 13:2)

1.Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu Akademii stroitel'stva i arkhitektury SSSR.
(Soil stabilization) (Vibrators)

KHLYUDOV, M.K., kand.tekhn.nauk; KHLUDEYEVA, Ye.O., red.izd-va; KUDAKOVA, N.I., tekhn.red.; BOROVNEV, N.K., tekhn.red.

[Leaflet on safety measures for excavator operator] Pamiatka po tekhnike bezopasnosti dlia mashinista ekskavatora. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 27 p. (MIRA 13:7)
(Excavating machinery--Safety measures)

PHASE I BOOK EXPLOITATION SOV/4910

Neklyudov, M. K., Candidate of Technical Sciences

Mekhanizirovannoye uplotneniye gruntov (Mechanized Ground Packing) Moscow, Gosstroyizdat, 1960. 142 p. Errata slip inserted. 2,70 copies printed.

Sponsoring Agency: Akademiya stroitel'stva i arkhitektury SSSR. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu (NIIOMTP).

Ed. of Publishing House: P. Ye. Vlasov; Tech. Ed.: Ye. L. Temkina.

PURPOSE: This book is intended for engineering and technical personnel engaged in earthwork. It may also be used as a manual for designers of ground-packing equipment.

COVERAGE: The author discusses the development of mechanized ground-packing operations in industrial construction and road building. Soviet and non-Soviet ground-packing methods and equipment are described. Trends in solving problems in mechanized ground packing

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are reviewed, and suggestions for the solution of these problems are given. The book contains many diagrams, drawings, photographs, and tables. No personalities are mentioned. There are 69 references, all Soviet (including one translation from English).

TABLE OF CONTENTS:

KHKLYUDOV, M.K., kand.tekhn.nauk

Reusable retaining walls for trenches and ditches.
Besop.truda v prom. 4 no.8:17-18 Ag '60. (MIRA 13:8)

(Retaining walls)

NEKLYUDOV, M.K., starshiy nauchnyy sotr., kand. tekhn. nauk; STRASHNYKH, V.P., red. izd-va; SHERSTNEVA, N.V., tekhn. red.

[Temporary instructions on soil compaction in the construction of industrial plants andpublic buildings] Vremennye ukazaniia po uplotneniiu gruntov v promyshlennom i grazhdanskom stroitel'stve; VU 2-61. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 46 p. (MIRA 14:10)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu. 2. Laboratoriya mekhanizatsii zemlyanykh rabot nauchno-issledovatel'skogo instituta organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu Akademii stroitel'stva i arkhitektury SSSR (for Neklyudov).

(Soil stabilization)

NEKLYUDOV, M.K., kand.tekhn.nauk

Mechanized soil compaction in industrial construction. Prom. stroi. 39 no.4:49-52 '61. (MIRA 14:6)
(Soil stabilization)

LEKLYUDOV, M.K., kand. tekhn. nauk; SVIRSKIY, V.A., inzh.; DEGTYAREVA, A.P., inzh., red.; ZVORYKINA, L.N., red.izd-va; KASIMOV, D.Ya., tekhn. red.

[Operation and maintenance of motor rollers] Rabota na motornykh katkakh. Pod red. A.P.Degtiareva. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 85 p. (MIRA 15:2)

1. Ukraine. Ministerstvo stroitel'stva. Tekhnicheskoye upravleniye. (Road rollers)

NEKLYUDOV, Mikhail Konstantinovich, kand. tekhn. nauk; TABUNINA, M.A., red. izd-va; KOMAROVSKAYA, L.A., tekhn. red.

[Safety regulations for shovel excavator operators]Pamiatka po tekhnike bezopasnosti dlia mashinista odnokovshovykh ekskavatorov. Izd.2., ispr. Moskva, Gosstroiizdat, 1962. 27 p. (MIRA 15:12)

(Excavating machinery—Safety regulations)

NEKLYUDOV, M.K., kand. tekhn. nauk; ZVORYKINA, L.N., red.izd-va; TARKOVA, K.Ye., tekhn. red.

[Safety manual for quarrymen] Pamiatka po tekhnike bezopasnosti dlia kamenoloma na kar'ere. Izd.2., ispr. i dop. Moskva, Gosstroiizdat, 1963. 23 p. (MIRA 16:9)
(Quarries and quarrying--Safety measures)

NEKLYUDOV, M.K., kand. tekhn. nauk

[Manual on mechanized soil stabilization] Spravochnoe posobie po mekhanizirovannomu uplotneniiu gruntov. Moskva, Stroiizdat, 1965. 218 p. (MIRA 19:1)

ACC NR: AM6008010 (A) Monograph UR/

Neklyudov, M. K. (Candidate of Technical Sciences)

Manual on mechanized consolidation of soils (Spravochnoye posobiye po mekhanizirovannomu uplotneniyu gruntov) Moscow, Stroyizdat, 65. 0218 p. illus., biblio. (At head of title: Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu (NIIOMTPS)). 10,000 copies printed.

TOPIC TAGS: soil mechanics, civil engineering

PURPOSE AND COVERAGE: The book discusses physicomechanical properties of soils and presents standard specifications for their consolidation in relation to the type of earth structure. Attention is given to production technology and methods of control in soil consolidation, and to trends in their improvement. The book acquaints the reader with mechanized means for the consolidation of soils in the Soviet Union and abroad. The book is intended for engineers and technical personnel planning and conducting earthwork.

TABLE OF CONTENTS (abridged):

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Ch. IV. Production technology in soil consolidation--133
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Case of hemorrhagic fever in Stara Zagora. Suvrem. med., Sofia 5 no.2:113-116 1954.

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(EPIDEMIC HEMORRHAGIC FEVER, epidemiology,
•Bulgaria)

1. NEKLYUDOV, N.V.

2. USSR (600)

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