ACCESSION NR: AP4010488 S/0080/64/037/001/0150/0153

AUTHOR: Shibalovich, V. S.; Okhrimenko, I. S.

TITLE: The thermal oxidation destruction of the divinyl styrene copolymer SKS-30 and the properties of the resulting products

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 1, 1964, 150-153

TOPIC TAGS: polymers, viscosity, low-molecular polymers, synthetic polymers, divinyl 70, styrene 30, oxidation destruction, chain molecules, carboxyl group, primary fragments, copolymer fission, film formation

ABSTRACT: This report deals with the preliminary results of an investigation on the oxidation destruction of copolymer SKS-30 (divinyl 70 and styrene 30 parts by weight), and the resulting fission products. In the experiment made during the investigation, air was blown through a 7% xylene solution of a purified copolymer at the rate of 90-120 liters per hour in the presence of a lead-manganese naphthenate catalyzer. The resulting data shows that the oxidation destruction of the

Card 1/2

ACCESSION NR: AP4010488

SKS-30 copolymer takes place in two stages. The destruction occurring in the double bonds of the chain molecules in the first stage is completed in the first 4-5 hours. The next period is characterized by a further oxidation of the primary fission products of the copolymer. In addition to its high degree of unsaturation, the low-molecular polymer resulting from the oxidation destruction contains a unique initiator of further polymerization and a number of oxidized groups whose polarizing action should affect the activity of the remaining double bonds. The above-cited data justifies the conclusions of a two-stage process of the oxidation destruction of the SKS-30 copolymer, and an increased reaction capacity of the fragment-oxidation end products. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut imeni Lensoveta (The Leningrad Lensovet technological institute)

SUBMITTED: 01Jul62 DATE ACQ: 14Feb64 ENCL: 00

SUB CODE: CH NO REF SOV: 012 OTHER: 004

Card 2/2

L 62137-65

ACCESSION NR: AP5016945

UR/0303/65/000/003/0026/0027
667.612.667.632:621.926

AUTHOR: Slavyaninova, Ye. L.; Okhrimenko, I.S.

TITLE: Effect of the nature and viscosity of certain resins on their emulsification in water by means of acoustic vibrations

SOURCE: Lakokrasochnyye materialy i ikh primeneniye, no. 3, 1965, 26-27

TOPIC TAGS: emulsification, hydrodynamic vibration, dispersed system, resin viscosity, emulsion stability, varnish base

ABSTRACT: The effect of the nature and viscosity of the emulsified products on the particle size distribution and stability of emulsions of three resins was studied. The resins were: rosin glyceride modified with tung oil (varnish base 321-T), pentaphthalic resin modified with a melamine-formaldehyde resin (varnish base PF1-9), and the base of organosilicon varnish K-47V. The emulsification was carried out with a hydrodynamic vibrator, and the emulsifiers were ammonia and the OP-10 wetting agent. The use of 321-T and PF1-9v increases the dispersity of the emulsion considerably. The dependence of the dispersity on the viscosity is most pronounced over a very narrow viscosity range when the vibrator is used; a mechanism is proposed for the dispersing

Card 1/2

L 62137-65

ACCESSION NR: AP5016945

effect of acoustic vibrations. The results lead to the conclusion that acoustic vibrations can be used for emulsifying resinous products, particularly those with a viscosity of 100 poise. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MT, GC

NO REF SOV: 006 OTHER: 000

Card 2/2

L 8947-66 EWT(m)/EWP(v)/EWP(1)/T/ETC(m) WW/RM

ACC NR: AP5026528 SOURCE CODE: UR/0286/65/000/019/0070/0070

AUTHORS: Bayeras, G. I.; Okhrimenko, I. S.

ORG: none

TITLE: Method for obtaining modified polycaproamide. Class 39, No. 175226 [announced by Leningrad Technological Institute im. Lensoveta (Leningradskiy tekhnologicheskiy institut)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 70

TOPIC TAGS: polycaproamide, polymer, adhesive, adhesion

ABSTRACT: This Author Certificate presents a method for obtaining modified polycaproamide by treating polycaproamide with low molecular weight compounds. To impart high thermal and adhesive properties to the polymer, unsaturated aldehydes are used as low molecular weight compounds.

SUB CODE: 07/ SUBM DATE: 08Jul64

Card 1/1

UDC: 547.381

L 11594-66 EWT(m)/EWP(j) RM

ACC NR: AP6000354 SOURCE CODE: UR/0286/65/000/021/0048/0048

AUTHORS: Okhrimenko, I. S.; D'yakonova, E. B.

ORG: none

TITLE: Method for obtaining thermosensitized carboxyl-containing latex. Class 39, No. 176068 [announced by Leningrad Technological Institute im. Lensovet (Leningradskiy tekhnologicheskiy institut)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 48

TOPIC TAGS: rubber, synthetic rubber, rubber chemical, latex

ABSTRACT: This Author Certificate presents a method for obtaining thermosensitized carboxyl-containing latex with the aid of thermosensitizing agents. To speed up the process of gel formation and to increase the thickness of the rubber gel layer, a mixture of aqueous solutions of polymethacrylic acid and polyvinylalcohol or its derivatives are used as thermosensitizing agents. The solutions are mixed in the ratio of 1.5:1 to 2.5:1.

SUB CODE: 11/ SUBM DATE: 11Jul64

Card 1/1 HW UDC: 678.041.5:678.744.332+678.744.72

D'YAKONOVA, E.B.; ONEHIMENKO, I.S.; YEFREMOV, I.F.

Effect of nonelectrolytes on the association of polymethacrylic acid and polyvinyl alcohol in solutions. Vysokom. soed. 7 no.6: 1016-1019 Je '65. (MIRA 18:9)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

L 54962-65 EWT(m)/EPF(c)/EPR/EWP(j)/T Pc-4/Pr-4/Ps-4 RPL MW/RM

ACCESSION NR: AP5014167 UR/0080/65/038/005/1176/1180

66.095+541.64

AUTHOR: Shibalovich, V. I.; [illegible]; Bogdanova, L. V.

TITLE: Irreversible hardening of the product of destruction of SKS-30 divinylstyrene copolymer

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 5, 1965, 1176-1180

TOPIC TAGS: divinylstyrene polymer, copolymer, polymer destruction, thermal destruction

ABSTRACT: Formation and hardening of noncrosslinked polymers was studied with the objective of obtaining corrosion- and chemically resistant protective coatings. The products of thermal-oxidative decomposition of SKS-30 divinylstyrene copolymer were used as raw material. These have the following characteristics: average molecular weight 300 to 400, percentage of active oxygen (in form of stable peroxides) from 0.8 to 1.0, acid number within 10 to 15 milligrams of KOH per gram polymer, iodine number [illegible] grams of I2 per 100 grams of polymer, saponification number of 42 milligrams of KOH per gram of polymer. Coatings [illegible]

Card 1/2

L 54962-65
ACCESSION NR: AP5013107

prepared from the products of decomposition of SKS-30 copolymer. These [illegible] were hardened in the temperature range from 125° to 170° and the hardening durations were 15, 30, 45, 60, 75, and 90 minutes. The resulting polymer [illegible] exhibit characteristic features of the cross-linked (three-dimensional) [illegible] they are nonfusing and insoluble. The process of hardening is irreversible; its rate is fast (at 150° it is completed within 1 to 1.5 hours). Infrared spectra indicated that the process of hardening is due to polymerization and polycondensation reactions involving double bonds and various oxygen-containing [illegible]. The activation energy of the hardening process is 10/kcal/mol. Orig. art. has: 1 table and 2 figures.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut imeni Lensoveta (Leningrad Institute of Technology)

SUBMITTED: 01Nov63 ENCL: 00 SUB CODE: GC, MT

NO REF SOV: 005 OTHER: 001

Card 2/2

L 18419-66 EWT(m)/EWP(j)/T/ETC(m)-6 WW/RM
ACC NR: AP6003428 (A) SOURCE CODE: UR/0190/66/008/001/0163/0167

AUTHORS: Bayeras, G. I.; Okhrimenko, I. S.

ORG: Leningrad Technological Institute im. Lensovet (Leningradskiy tekhnologicheskiy institut)

TITLE: Modification of mixed polyamides with acrolein

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 1, 1966, 163-167 and insert facing page 166

TOPIC TAGS: polyamide, polymerization, reaction mechanism / 548 mixed polyamide

ABSTRACT: The reaction of mixed polyamide 548 (I) with acrolein (II) at various temperatures, reaction times, ratio of components, and with various catalysts, was investigated in the hope of imparting thermal reactivity to the product. Ethanolic solutions (20%) of (I), containing various amounts of acid catalysts (H_3PO_4, HCOOH, CH_3COOH) and freshly distilled (II) were employed in the reaction. Variable conditions of the reaction and properties of the product are tabulated. A schematic representation of the reaction is offered as

Card 1/2 UDC: 678.01:54+678.675

L 18419-66
ACC NR: AP6003428

$$\sim R{-}NH_2 + OHC{-}CH{=}CH_2 \rightarrow \sim R{-}N{=}CH{-}CH{=}CH_2 \quad (a)$$

$$\sim R{-}NH_2 + OHC{-}CH{=}CH_2 \rightarrow (\sim R{-}NH)_2CH{-}CH{=}CH_2 \quad (б)$$

$$\sim R{-}NH{-}CO{-}R \sim + OHC{-}CH{=}CH_2 \rightarrow R{-}\underset{\displaystyle HOCH{-}CH{=}CH_2}{\overset{\displaystyle |}{N}}{-}CO{-}R \sim \rightarrow \quad (в)$$

$$\sim R{-}\underset{\displaystyle CH{-}CH{=}CH_2}{\overset{\displaystyle |}{N}}{-}CO{-}R \sim \quad (г)$$

which indicates that the process occurs mainly at the amino and amide groups, with formation of alcohol-soluble products of high thermal reactivity. It was shown that cross-linking occurs under drastic temperature conditions. Thermomechanical and x-ray data indicated that lowered crystallinity and orientation of the polyamide followed its modification with aldehyde and its subsequent thermal treatment. Roentgengrams were taken in the B. P. Opelkin X-ray Crystallography Laboratory, LTI im. Lensovet. Orig. art. has: 3 tables, 3 figures, and 5 structures.

SUB CODE: 07/ SUBM DATE: 09Mar65/ ORIG REF: 012/ OTH REF: 006

Card 2/2

L 40807-66 EWT(m)/EWA(c)/T/EWP(t) IJP(c) RM/WW

ACC NR: AP6025622 SOURCE CODE: UR/0413/66/000/013/0077/0077

AUTHORS: Mashlyakovskiy, L. N.; Ionin, B. I.; Okhrimenko, I. S.; Petrov, A. A. 44 B

ORG: none

TITLE: Preparative method for phosphorus-containing polyesters. Class 39, No. 183385 announced by Leningrad Technological Institute imeni Lensovet (Leningradskiy tekhnologicheskiy institut)

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 77

TOPIC TAGS: phosphorus, polyester, polycondensation, phosphonic acid, glycol, polymer

ABSTRACT: This Author Certificate presents a method for preparing phosphorus-containing polyesters by polycondensation of alkylphosphonic chlorides with aliphatic or aromatic glycols. To broaden the assortment of phosphorus-containing polymers having high fire resistance and good adhesion to metals, phosphonic chloride, are used as the alkylphosphonic chlorides. [04]

SUB CODE: 07/ SUBM DATE: 22Apr65 / ATD PRESS: 5109

Card 1/1 MLP UDC: 678.674
678.85

L 43900-66 EWT(m)/EWP(j) RM
ACC NR: AP6015656 (A) SOURCE CODE: UR/0413/66/000/009/0072/0072

INVENTOR: Bayeras, G. I.; Okhrimenko, I. S.

ORG: none

TITLE: Method of preparing polyamide varnishes. Class 39, No. 181274 [announced by Leningrad Technological Institute im. Lensovet (Leningradskiy tekhnologicheskiy institut)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 72

TOPIC TAGS: polyamide, varnish

ABSTRACT: An Author Certificate has been issued for a method of obtaining polyamide varnishes with a mixed polyamide base in a mixture of alcohols with the introduction of a modifier. To improve the physical and mechanical properties of the polyamide and the varnish, acrolein or crotonic is used as the modifier. [Translation] [NT]

SUB CODE: 11/, SUBM DATE: 26May65/

Card 1/1

UDC: 667.633.26:678.675-9:547.381

L 04822-67 EWP(j)/EWT(m)/EWP(t)/ETI IJP(c) RM/JD

ACC NR: AP6006721 (A,N) SOURCE CODE: UR/0303/66/000/001/0023/0025

27
26
B

AUTHOR: Okhrimenko, I. S.; Verkholantsev, V. V.

ORG: none

TITLE: Aqueous thixotropic parkerizing priming compositions for coating rusting metal surfaces

SOURCE: Lakokrasochnyye materialy i ikh primeneniye, no. 1, 1966, 23-25

TOPIC TAGS: phosphate, rust inhibitor, protective coating

15

ABSTRACT: Parkerizing priming compositions were prepared from SKS-70 MVP-10 pyridine-containing copolymer and phosphoric acid. Thixotropic dispersions (pastes) that can be readily spread with a brush were prepared by coagulating the latex of the copolymer with concentrated (62%) H_3PO_4. Their viscosity, rate of thixotropic gelling, film-forming capacity, and the physicomechanical properties of the films were found to depend primarily on the ratio of the polymeric part to the acid introduced. In the course of drying of the film on a metal surface, a certain redistribution of phosphoric acid takes place: part of the acid remains in the film, and the rest becomes directly bonded to the metal (a phosphate film is visible after removal of the coating). Calculations show that in order to obtain a phosphate film 3-5 μ thick on steel, all of the H_3PO_4 contained in a 30-40 μ film (at a ratio of the polymer salt SKS-70 MVP-10 to H_3PO_4 of 70:30) is required. The pyridine-containing primers were found to be as

UDC: 667.621.26:667.656.221

Card 1/2

L 04822-67

ACC NR: AP6006721

good as VI-02 and No. 138 standard primers, and to have several advantages over the latter; they are simple to produce and do not require pigmentation or the use of organic solvents. They are recommended for use on rusting and wet steel surfaces in temperate climates. Orig. art. has: 3 figures and 2 tables.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 004

Card 2/2 gd

OKHRIMENKO, L. S.

2778. OKHRIMENKO. L. S. Ispol'zovaniye Smennogo Oborudovaniya i Organizatsiya Snabzheniya Im Smennykh i Martenovskikh Tsekhov. Khar'kov, 1954. 16s. 20sm. (M-vo Vyssh. Obrazovaniya SSSR. Khar'kh. Inzh.-Ekon. In-t). 100 ekz. Bespl.- (54-54896)

SO: Letopis' Zhurnal'nykh Statey, Vol. 42, Moskva, 1949

BRUSYANTSEV, N.; KOLTYPIN, S.; CKHRIMENKO, L.

The AC-9,5 motor oil produced of eastern sulfurous petroleums.
Avt. transp. 36 no.12:13-15 D '58. (MIRA 11:12)

1.Nauchno-issledovatel'skiy institut avtomobil'nogo transporta.
(Automobiles--Lubrication)

KONOVALOVA, L.P.; OKHRIMENKO, L.S.; STRUGAL'SKIY, Z.S.

Determining the energy of gamma-ray quanta in a xenon bubble chamber. Prib. i tekh.eksp. 6 no.6:26-31 N-D '61.
(MIRA 14:11)

1. Ob"yedinennyy institut yadernykh issledovaniy. 2. Institut yadernykh issledovaniy, Varshava (for Strugal'skiy).
(Bubble chamber)
(Gamma rays)

GRAMENITSKIY, I. N., IVANOVSKAYA, I. A., KANAREK, T., MARTEN, A. S.,
OKHRIMENKO, L. S., PROKOSH, A., STRUGALSKIY, S. S., TIKHONOVA, L. A. and CHUVILO, I. V.

"Neutral Strange Particles Production on Xenon Nuclei in the 9 Gev/c π^- Meson Beam"

report presented at the Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Joint Institute for Nuclear Research
Laboratory of High Energies

OKHRIMENKO, L. I.

GRAFOVITSKIY, I. N., IVANOVSKAYA, I. A., KANAREK, T., MARTINOV, A. G., OKHRIMENKO, L.S., PROKESH, A., TIMOSHOVA, L. A.

"Cross-Section of the Generation of π^0-Mesons in the Coulomb Field of the Xenon Nucleus at the Momentum of Primary π^--Mesons 9 Gev/C"

report presented at the Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Joint Inst. for Nuclear Research
Lab. of High Energies, Dubna, 1962

GRAMENITSKIY, I.M.; IVANOVSKAYA, I.A.; PANASYUK, A.; [illegible], I.; PROKESH, A.; TIKHONOVA, L.A.

Study of the reaction $\pi^- + Xe \rightarrow \pi^- + \pi^0 + Xe$ involving 9 Gev/c primary π^--mesons. Zhur.eksp.i teor.fiz. 46 no.6:2023-2027 Je '64.

Ob"yedinennyy institut yadernykh issledovaniy.

ACCESSION NR: AP4042562 S/0056/64/046/006/2023/2027

AUTHORS: Gramenitskiy, I. M.; Ivanovskaya, I. A.; Kanarek, T.; Okhrimenko, L. S.; Prokesh, A.; Tikhonova, L. A.

TITLE: Investigation of the reaction $\pi^- + Xe \rightarrow \pi^- + \pi^0 + Xe$ for 9 GeV/c primary negative pions

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 6, 1964, 2023-2027

TOPIC TAGS: pion, pion interaction, pi meson product, negative pi meson, neutral pi meson, xenon, Coulomb field

ABSTRACT: The production of negative and neutral pions in the interaction between negative pions and nuclei, with small momentum transfer to the recoil nucleus, was investigated in a xenon bubble chamber. The greatest interest in these reactions lies in the process of producing a neutral pion in a Coulomb field, for this reaction can yield information on the interaction between pions and gamma rays. The se-

Card 1/2

ACCESSION NR: AP4042562

lection criteria and the measurement procedures and the data reduction procedure are described in detail. An upper limit of 1.0 + 0.2 mb is estimated for the cross section for production of neutral pions in the Coulomb field of the xenon nucleus. This estimate does not agree with results by others and possible reasons for the discrepancy are suggested. "The authors are grateful to Ye. V. Kuznetsov for calling their attention to the topic, to M. I. Podgoretskiy and A. S. Marty*nov for helpful discussion, and to the staff of technicians that took part in the scanning and measurement." Orig. art. has: 3 figures and 4 formulas.

ASSOCIATION: Ob"yedinenny*y institut yaderny*kh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: 19Jan64 DATE ACQ: ENCL: 00

SUB CODE: NP NR REF SOV: 003 OTHER: 003

Card 2/2

L 2120-65 EWT(m) DIAAP/AFWL/SSD/ESD(t)
ACCESSION NR: AP4046389 S/0056/64/047/003/0801/0805

AUTHORS: Gramenitskiy, I. M.; Okhrimenko, L. S.; Slovinskiy, B.; Strugal'skiy, Z. S. 16 11

TITLE: Estimate of the cross section for the charge exchange of negative pions on quasi-free protons at 9 GeV/c 19

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 3, 1964, 801-805

TOPIC TAGS: charge exchange, pion proton scattering, exchange cross section, elastic scattering, bubble chamber

ABSTRACT: In view of the scarcity of data on the exchange scattering of negative pions by protons in the energy region of several GeV, the authors investigated the exchange scattering of 9 GeV/c negative pions by quasi-free protons in a xenon bubble chamber, with an aim at investigating the charge-exchange reaction

Card 1/3

$$\pi^- + p \rightarrow \pi^0 + n. \qquad (1)$$

This was done by scanning twice the photographs obtained in the bubble chamber, and selecting all the prongless stars within a small region of the chamber. A total of 116 such events were selected from 55,000 stereo photographs. The angles between the γ quanta and the angles between the γ-quantum direction and the direction of the primary negative pion track were measured. Much attention is paid to the separation of the background events and the events which can be mistaken for the investigated charge-exchange reaction. The final estimate for the reaction (1) is found to be 0.48 ± 0.18 mb for scattering by xenon and 0.04 ± 0.09 mb for scattering by the exchange quasi-free proton. In the case of pions of 200 MeV energy, the exchange cross section is -0.03 ± 0.03 mb. This indicates that the elastic charge exchange of pions at 9 GeV/c is vanishingly small.

"The authors thank Ye. Bogdanovich, V. G. Grishin, and M. I. Podgoretskiy for useful discussions, and also N. Smirnova and L. Mas-

L 2120-65
ACCESSION NR: AP4046389 2

lova and G. Stroykova for help with the work." Orig. art. has: 3 figures, 4 formulas, and 1 table.

ASSOCIATION: Ob"yedinenny*y institut yaderny*kh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: 21Mar64 ENCL: 00

SUB CODE: NP NR REF SOV: 007 OTHER: 008

Card 3/3

OKHRIMENKO, N.I., gornyy inzh.; KARPOV, A.P., gornyy inzh.;
KURBANGALEYEV, I.Kh., gornyy inzh.; AMIROV, M.I., gornyy inzh.

Improving boring and blasting operations in the Uchaly Mine.
Gor. zhur. no.6:39-40 Je '62. (MIRA 15:11)

1. Uchalinskiy rudnik.
(Uchaly region—Blasting)
(Boring)

OKHRIMENKO, N.M., inzh.

Studies of the All-Union Design and Planning Scientific Research Institute for Drilling Oil and Gas Wells on well sinking under complex conditions. Trudy VNIIBT no.1:134-141 '58.
(MIRA 11:12)

(Oil well drilling)

11(0)

AUTHOR: Okhrimenko, N. M., Malyshev, A.I., and Kravchenko, N.S. SOV/93-58-10-5/19

TITLE: The Experience in Using Cellophane as a Prevention Against the Absorption of Drilling Fluids (Opyt primeneniya tsellofana pri bor'be s pogloshcheniyami)

PERIODICAL: Neftyanoye khozyaystvo, 1958, Nr 10, pp 23-25 (USSR)

ABSTRACT: Laboratory and industrial tests have determined that cellophane is a good drilling fluid thickener and can prevent the escape of fluid during turbine drilling. The tests have shown that the channels of the turbodrill's turbine remain free of clogs when the cellophane concentration of the drilling fluid amounts to 3 weight-percent of the fluid volume and the size of the cellophane particles range from 0.5 to 12 mm (Table 1). The tests have also disclosed that the cellophane particles do not drop out when the minimum fluid viscosity as determined by the SPV-5 method is 22-25 seconds and the static shear stress in 1 and 10 minutes is 38 and 43 mg/sq cm, respectively. The industrial tests were carried out in the Mukhanovo rayon of the Kuybyshev oblast' where it costs 30,000 - 150,000 rubles per well to prevent drilling fluid escape (Table 2). The authors conclude that cellophane can be obtained as waste products from the food industry or from the cellophane producing combine.

Card 1/1

OKHRIMENKO, N.M.; PRUTYANOV, I.P.

New method for eliminating circulation loss. Neft. khoz. 41 no.3: 18-20 Mr '63. (MIRA 17:11)

[redacted], M.M.; [redacted], I.P.

Elimination of troubles related to circulated losses using a net cover and plugging mixture with a filler. Trudy VNIIBT no.5:32-38 '63. (MIRA 17:9)

OKHRIMENKO, N.N.

Xanthomatosis of the bone with hypertensive manifestations. Klin. med., Moskva 30 no. 6:77-78 June 1952. (CLML 22:5)

[illegible], L.L. (L'vov).

Beneficial results of surgery in a case of tuberculoma of the dura mater of the spinal cord. Vop.neurokhir. 17 no.2:57-58 Mr-Ap '53. (MLRA 6:5)
(Spinal cord--Tumors)

OKHRIMENKO, N. N. (L'vov)

Surgical treatment of meningoencephalitis complicated by septic hemorrhage. Vop.neirokhir. 18 no.6:57-59 N-D '54 (MLRA 8:4)

(MININGOENCEPHALITIS, complications,
hemorrh.)
(CEREBRAL HEMORRHAGE, etiology and pathogenesis,
meningoencephalitis)

OKHRIMENKO,N.N., BAKHUR, V.T.(L'vov)

Cerebrospinal fluid examination by stages in the diagnosis of cerebral tumors. Vop.neirokhir. 20 no.3:37-39 My-Je '56. (MLRA 9:8)

(BRAIN, neoplasms
diag., CSF exam. in stages)
(CEREBROSPINAL FLUID, in various dis.
brain tumors, exam. in stages)

OKHRIMENKO, N.N., podpolkovnik med.sluzhby, LEYKIN, M.M., podpolkovnik med.sluzhby (Chita),

Lightning damage to the brain and spinal cord with retarded formation of multiple hemangiomas. Vrach.delo no.7:733 J1'58 (MIRA 11:9)
(ELECTRICITY, INJURIES FROM)
(TUMORS)
(NERVOUS SYSTEM--WOUNDS AND INJURIES)

CHRIMENKO, N.N. (Chita)

Surgical therapy in extensive pneumocephalon. Vop.neirokhir. 22 no.6:42-43 N-D '58. (MIRA 12:2)
(BRAIN, wds. & inj.
causing pneumocephalon, surg. (Rus))

OKHRIMENKO, N.N., podpolkovnik meditsinskoy sluzhby; BRODOVSKIY, V.K., mayor meditsinskoy sluzhby

Significance of pneumoencephalography in diagnosis and expert testimony in closed brain trauma. Voen.-med.zhur. no.9:68-70 S '59.
(MIRA 13:1)

(BRAIN, wds. & inj.)
(VENTRICULOGRAPHY)

OKHRIMENKO, N.N., podpolkovnik meditsinskoy sluzhby; BRODOVSKIY, V.K., mayor meditsinskoy sluzhby; MYASOYED, L.P.

Clinical aspects of serous meningitis. Voen.-med. zhur. no.5:45-47 My '61. (MIRA 14:8)

(MENINGITIS)

OKHRIMENKO, N. N.; BRODOVSKIY, V. K. (Chita)

Fascicular twitchings in spinal tumors of high localization. Vop. neirokhir. no.6:61 '61. (MIRA 14:12)

(SPINAL CORD—TUMORS)

OKHRIMENKO, N.N.; GARTORIZHSKIY, N.A. (Chita)

Combination of cerebral teratoma with solitary tuberculosis.
Vop. neirokhir. 26 no.6:54 N-D'62 (MIRA 17:3)

UTKIN, V.V.; OKHRIMENKO, N.N.

Diagnostic value of the changes in the composition of the cerebrospinal fluid and the fundus oculi in tumors and arachnoiditas of the brain. Zhur. nevr. i psikh. 65 no.5:667-671 '65.

(MIRA 18:5)

1. Glavnyy voyennyy gospital' im. Burdenko, Moskva.

OKHRIMENKO, N.V.

Making grooves for rectilinear threads. Stan.i instr. 29 no.12:33 D '58. (MIRA 11:12)
(Screw cutting)

OKHRIMENKO, O.F.

How we improved the construction of threshing machine. Mekh. sil'.hosp. 13 no.12:18 D '62. (MIRA 16:2)

1. Glavnyy inzh. kolkhoza "Vpered", Khotinskogo rayona, Sumskoy obl.

(Threshing machines—Maintenance and repair)

OKHRIMENKO, O. F.

They worked well. Mekh. sil'. hosp. 14 no.2:30 F '63.
(MIRA 16:4)

1. Glavnyy inzh. kolkhoza "Vpered".

(Farm mechanization)

OKHRIMENKO, O.F.

Our remarks. Mekh. sil'. hosp. 14 no.4:18-19 Ap '63. (MIRA 16:10)

1. Glavnyy inzh. kolkhoza "Vpered" Sumskogo proizvodstvennogo upravleniya Sumskoy oblasti.

OKHRIMENKO, O. I., VASIL'YEV, A. A. and VANSHEYDT, Ye. A.

"Method for the Quantitative Determination of the Content of Sulfonic Acid Groups and Carboxyl Groups in Cationites by Titrating Them," an article included in the book "The Theory and Practice of the Application of Ion-Exchange Agents," edited by K. V. Chmukov and published by the AS USSR, 1955, 164 pp.

U/L-1

JPRS: L-974-N

CSO: 1743-N

THEORY AND PRACTICE OF THE APPLICATION OF ION-EXCHANGE MATERIALS

K. V. Chmutov

Teoriya i Praktika Primeneniya Ionoobmennykh Materialov, Moscow, 1955, pp 1-164.

TABLE OF CONTENTS

OKHRIMENKO, O. I.

6

2-[illegible]

✓ Determination of exchange capacity of sulfonated and carboxylic cationites. A. A. Vaznets[illegible], A. A. Vasil'ev, O. I. Okhrimenko, and G. A. [illegible], Khromatografiya, Leningrad. Gosudarst. Univ. im. A. A. Zhdanova, Sbornik Statei 1958, 51-67.—A new and rapid method is presented for the detn. of full exchange capacity of cation-exchange resins. A sample of the resin in H-form is titrated with [illegible] in the presence of an excess of NaCl and methyl orange in case of sulfonated hydrocarbon and sulfonated phenolic resins, and NaOAc and phenolphthalein in case of carboxylic resins. The values of exchange capacity obtained by this method agree with those calcd. from the contents of the active groups in the resins. A. Libackyj

1/1 Distr: 4B2e(j)/4Ehj

OKHRIMENKO, P., slesar'-insturmental'shchik

Portable manual roller-cutters. Suggested by P.Okhrimenko. Rats. i izobr. predl. v stroi. no.15:31-32 '60. (MIRA 13:9)

1. Po materialam tresta Metallurgmontazh Ministerstva stroitel'stva USSR.

(Cutting machines)

RUDIN, V.P., professor; OKHRIMENKO, R.D.

Acute miliary tuberculosis in young people. Vrach.delo no.7:701-705 Jl '57. (MLRA 10:8)

1. Kafedra ftiziatrii (zav. - prof. V.P.Rudin) Kiyevskogo meditsinskogo instituta
(TUBERCULOSIS)

RUDIN, V.P., professor; OKHRIMENKO, R.D.

Miliary tuberculosis in middle-aged and old people. Pat., klin. i terap.tub. no.8:187-191 '58. (MIRA 13:7)

1. Iz kafedry ftiziatrii (zav. - prof. V.P. Rudin) Kiyevskogo meditsinskogo instituta im. akad. A.A. Bogomol'tsa.
(TUBERCULOSIS)

RUDIN, V.P., prof.; OKHRIMENKO, R.D.

Acute miliary tuberculosis in young persons. Pat., klin. i terap. tub. no.8:192-196 '58. (MIRA 13:7)

1. Iz kafedry ftiziatrii (zav. - prof. V.P. Rudin) Kiyevskogo meditsinskogo instituta im. akad. A.A. Bogomol'tsa.
(TUBERCULOSIS)

KHARKHUTA, Nikolay Yakovlevich; VASIL'YEV, Yuriy Mikhaylovich; OKHRIMENKO, Regina Kirillovna; YEGOZOV, V.P., red.; LAKHMAN, F.Ye., tekhn.red.

[Compaction of earth for road fills] Uplotnenie gruntov dorozhnykh nasypei. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transp. i shossejnykh dorog RSFSR, 1958. 142 p. (MIRA 12:4)
(Road construction)

VASIL'YEV, Yu.M., insh.; OKHRIMENKO, R.K.

New rollers on pneumatic tires. Avt.dor. 23 no.7:10-11 Jl '60. (MIRA 13:7)

(Rollers (Earthwork))

VASIL'YEV, Yu.M.; OKHRIMENKO, R.K.

Erecting embankments of waterlogged soil treated with drying agents. Avt. dor. 27 no.2:13-14 F '64. (MIRA 17:3)

OKHRIMENKO, V. A., CAND TECH SCI, "Study of the PROCESSES OF STOPING AND ESTABLISHMENT OF BASIC PARAMETERS of the A SYSTEM OF MINING with SUBLEVEL HYDRAULIC BREAKING IN the KUZBAS. MOSCOW, 1960. (MIN OF HIGHER AND SEC SPEC ED USSR. MOSCOW MIN INST IM I. V. STALIN). (KL, 2-61, 211).

BOYKO, A.A., inzh.; DRUKOVANYY, M.F., kand. tekhn. nauk; BABOKIN, I.A., inzh.; ZAYTSEV, A.P., inzh.; POLESIN, Ya.L., inzh.; SOBOLEV, G.G., inzh.; ZHUKOV, V.V., kand. tekhn. nauk; TOPCHIYEV, A.V., prof.; VEDERNIKOV, V.I., kand. tekhn. nauk; OKHRIMENKO, V.A., kand. tekhn. nauk; MELAMED, M.Z., kand.tekhn. nauk; KUZNETSOV, K.K., inzh.; RABINOVICH, I.A.; YASNYY, V.K., inzh.; LIVSHITS, I.I., kand. tekhn. nauk, retsenzent; BARANOV, A.I., inzh., retsenzent; LOMILINA, L.N., tekhn. red.

[Brief handbook of a coal mining engineer] Kratkii spravochnik gornogo inzhenera ugol'noi shakhty. Moskva, Gosgortekhizdat, 1963. 639 p. (MIRA 17:3)

LOKSHIN, Boris Savel'yevich; SELETSKIY, R.A., dots., retsenzent; OKHRIMENKO, V.A., red.

[Selecting the location for sinking a mine shaft; analytical and graphical methods of solving the problem] Vybor mesta zalozheniia stvola shakhty; analiticheskie i graficheskie sposoby resheniia zadach. Moskva, Nedra, 1965. 83 p. (MIRA 18:4)

OKHRIMENKO, Veniamin Antonovich, kand. tekhn. nauk; NIKONOV, G.P., kand. tekhn.nauk, retsenzent; IVANOV, A.Ye., inzh., otv. red.; NURMUKHAMEDOVA, V.F., red. izd-va; IL'INSKAYA, G.M., tekhn. red.; LOMILINA, L.N., tekhn. red.

[Operator of hydraulic giants in coal mines and pits]Gidromonitorshchik na ugol'nykh shakhtakh i kar'erakh. Moskva, Gosgortekhizdat, 1962. 263 p. (MIRA 15:12)
(Hydraulic mining--Equipment and supplies)

DENISOV, G.M.; OKHRIMENKO, V.D.

Instruction should be revised. Transp. stroi. 9 no.11:61-62 N '59
(MIRA 13:3)

1. Nachal'nik upravleniya Stalinskstroyput' (for Denisov). 2. Nachal'nik proizvodstvenno-tekhnicheskogo otdela Gorem No.33 tresta Gortranasstroy (for Okhrimenko).
(Railroads—Track)

IVANOV, M.A., inzh.; LETKOV, N.L., inzh.; PARGIN, D.P., kand. tekhn. nauk [deceased]; OKHRIMENKO, V.V., [redacted]h.

Heat control technique using a thermocouple. Vest. elektroprom 34 no.6:57-58 Je '63. (MIRA 16:7)

(Hydraulic turbines) (Temperature—measurement) (Thermocouples)

OKHRIMENKO, V. Ye., klinicheskiy ordinator

Use of oxygen therapy in some eye diseases. Oft. zhur. 17 no.4: 228-231 '62. (MIRA 15:7)

1. Iz kafedry glaznykh bolezney (zav. - prof. A. M. Rodigina) L'vovskogo meditsinskogo instituta.

(OPHTHALMOLOGY) (OXYGEN THERAPY)

L 20241-65 EWT(m)/EWA(d)/T/EWP(t)/EWP(k)/EWP(b) Pf-4 Pa:
IJP(c)/AFETR MJW/JD/HW
ACCESSION NR: AP5001777 S/0182/64/000/012/0030

AUTHOR: Kazarinov, B. N.; Okhrimenko, Ya. M.

TITLE: Improved technology for forging EI437BU alloy

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 12, 19[illegible]

TOPIC TAGS: nickel alloy, EI437BU alloy, Nimonic 80A type a[illegible] die forging, die shape, forging technique, mechanical prope[illegible]

ABSTRACT: Five heats of austenitic, nickel-base, heat-res[illegible] EI-437B [Nimonic 80A type alloy were cast in 10-kg ingots [illegible] 0.8% taper and used in the experiments to develop an impr[illegible] technique for forging similarly shaped 700-kg ingots. The [illegible] were rough machined, heated to 1160C, and forged in flat or concave [illegible] dies. On the basis of the experimental results, concave dies [illegible] with a contact angle of 10° were selected for forging 700-kg ingots [illegible] 1 x 200—270 mm rounds, and flat dies for forging 700 x [illegible] s bares. In industrial-scale testing, 12 heats of the alloy [illegible] cast into 700-kg ingots. The ingots were heated to 1150—1[illegible]

Card 1/2

L 20241-65
ACCESSION NR: AP5001777

in 20—25 hr and forged into 220-mm round or 200 x 700-mm square billets without reheating. The forging was ended at 900C. [illegible] forged by the above technique had a tensile strength of 68—[illegible] an elongation of 17—30%, a reduction of area of 18—29%, a [illegible] strength of 72—81 kg/mm^2, and a notch toughness of 3.0—6.[illegible] compared with 90 kg/mm^2, 60 kg/mm^2, 13%, 16%, and 3.[illegible] by specifications. The rupture life at 750C under a stress [illegible] was 115—320 hr, also higher than 100 hr required by specifications. Orig. art. has: 6 figures and 2 tables

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 000 OTHER: 000 ATD PRESS:

Card 2/2

OKHRIMENKO, YA. N.

Tekhnologiia goriachei shtampovki stali. Moskva, Mashgiz, 1949. 280, (4) p. illus.

Bibliography: p. 280-(281).

(Technique of steel drop forging.)

DLC: TS253.055

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

OKHRIMENKO, Ya. M.

Okhrimenko, ya. M. - "A method of examining the mechanical properties of steel in the region of critical temperatures", Stornik (Mosk. in-t stali im Stalina), 27, 1949, p. 202-09.

SO: U-3042, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 8, 1949).

1. OKHRIMENKO, Ya. M.

2. USSR (600)

4. Deformations (Mechanics)

7. Priority of derivation of analytical formulas of specific pressures of deposits between flat blocks. Vest.mash., 32, no. 12, 1952.

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

OKHRIMENKO, Ya.M., dotsent, kandidat tekhnicheskikh nauk.

Experimental investigation of the upsetting process. Sbor.Inst.stali no.32:392-408 '54. (MLRA 10:5)

Kafedra kovki i shtampovki.

(Metals--Cold working)
(Deformations (Mechanics))

Okhrimenko, Ya. M.

" An Experimental Investigation of Deformation During Upsetting, Report 2", pp 220-245 from "Tekhnologicheskiye Protesessy Obrabotki Stali i Splavov, Sbornik 33", Metallurgizdat, Moscow, 1955, 452 pp.

OKHRIMENKO, Ya. M.

PAVLOV, I.M. professor, doktor tekhnicheskikh nauk; FEDOSOV, N.M., SVERDENKO, V.P.; TARNOVSKIY, I.Ya., redaktor; LANGE, B.L. OKHRIMENKO, Ya. M.; VALOV. N.A., redaktor; SHPAK, Ye.O., tekhnicheskiy redaktor.

[Press working of metals] Obrabotka metallov davleniem. Pod nauchnoi red. I.M.Pavlova. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1955. 483 p. (MLRA 9:1)

1. Chlen-korrespondent AN SSSR (for Pavlov)
(Metalwork)

OKHRIMENKO, Ya.M., dotsent, kandidat tekhnicheskikh nauk.

Experimental investigation of deformation by swaging. Sbor.Inst. stali no.33:220-245 '55. (MLRA 9:6)

1.Kafedra kovki i shtampovki. Predstavleno professorom V.I. Zalesskim.
(Strains and stresses)

OKHRIMENKO, Yakov Mikhaylovich

PHASE I BOOK EXPLOITATION 400

Okhrimenko, Yakov Mikhaylovich

Osnovy tekhnologii goryachey shtampovki (Principles of Drop Forging) Moscow, Mashgiz, 1957. 328 p. 15,000 copies printed.

Reviewers: Aristov, V. M., Candidate of Technical Sciences, and Moskovskoye vysshoye tekhnicheskoye uchilishche. Kafedra kuznechno-shtampovochnogo proizvodstva; Ed.: Shofman, L. A., Candidate of Technical Sciences; Ed. of Publishing House: Mezhova, V. A.; Tech. Eds.: Model', B. O. and Tikhanov, A. Ya.; Managing Ed. for literature on heavy machine building (Mashgiz): Golovin, S. Ya., Engineer.

PURPOSE: This is a textbook on forging for students specializing in this field. It may also be useful to process engineers.

COVERAGE: This book contains all the basic facts on forging, pressing and forming of metal in accordance with government regulations for mining and metallurgical institutes. The author stresses the importance of forged parts in the machine-building and in the automotive industry. About a quarter of the Soviet annual

Card 1/8

Principles of Drop Forging

steel production is reported to be used for forgings. Modern forging methods and machinery are described, evaluated, and illustrated. The advantages of forgings over castings and machining are discussed. The author presents suggestions for the improvement and streamlining of forging methods. No personalities are mentioned. There are 177 references of which 166 are Soviet, 9 English, 1 French, and 1 German.

TABLE OF CONTENTS:

400

Principles of Drop Forging

Card 3/8

Principles of Drop Forging

Card 4/8

Card 5/8

Card 7/8

Principles of Drop Forging

AVAILABLE: Library of Congress GO/gmp

Card 8/8 July 10, 1958

Okhrimenko, Ya. M.

"Experimental Investigation of External Friction When Upsetting, Report 3", pp 371-393 from "Sbornik Nr 36", Moscow Institute of Steel, Metallurgizdat, Moscow, 1957, 451 pp.

SOV/137-58-9-19037

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 128 (USSR)

AUTHOR: Okhrimenko, Ya.M.

TITLE: An Experimental Investigation of Friction in Upsetting. Communication Nr 3 (Eksperimental'noye issledovaniye vneshnego treniya pri osadke. Soobshcheniye 3)

PERIODICAL: Sb. Mosk. in-t stali, 1957, Vol 36, pp 371-393

ABSTRACT: An investigation is made of the laws governing the friction (F) at the contact surface in upsetting. The design of an apparatus for determining the force of F and the coefficient of F, μ_0, in upsetting is proposed and presented. This instrument was used to investigate the influence of the degree of deformation ϵ, the D/H ratio in the dimensions of the specimen, and the intensity of the condition of stress throughout its volume, upon F. It is established that a quantitative change in F force in anisotropic F occurs at the expense of the value of the free term, a, in the 2-term expression for the law of F, and partly of μ_0. As ϵ increases during upsetting of specimens to an identical value of D_{final}/H_{final}, the force of F declines owing to μ and a. It is experimentally confirmed that as the D/H of

Card 1/2

SOV/137-58-9-19037

An Experimental Investigation of Friction in Upsetting. Communication Nr 3

the specimens and the roughness of the plates increase, the friction force increases to a maximum value, which approximately equals one-half of the σ_S of the stressed metal. HD established that as D/H is increased in the condition of maximal F forces, μ_0 diminishes. An increase in the intensity of the body stresses results in an increase in the force of F as μ_0 rises. Under conditions in which the contact forces of F are less than their maximum value, all factors leading to an increase in the forces of F result in an increase in the upsetting stress as the specimens undergoing deformation are subjected to shear. At maximum forces of F, increased upsetting stresses, as for example those occurring upon increase of the D/H ratio, are accompanied by a decline in μ_0. For Communication Nr 2, see RZhMet, 1955, abstract 33.

M.Ts.

1. Metals--Processing 2. Friction--Mathematical analysis 3. Industrial equipment --Design

Card 2/2

SOV/137-59-1-1630

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 216 (USSR)

AUTHOR: Okhrimenko, Ya. M.

TITLE: Convexity of Surfaces Reduced by Flat Stamping With Forging Dies (Vypuklost' poverkhnostey, obzhatykh ploskim instrumentom)

PERIODICAL: Nauchn. dokl. vyssh. shkoly. Metallurgiya, 1958, Nr 1, pp 157-162.

ABSTRACT: It is pointed out that the surface convexity of stamped specimens may be explained by considering a system of effective forces in conjunction with the Boussinesq problem well known in the theory of elasticity. The convexity (C) of the specimen is a reflection of the concavity of the die due to the elastic vertical displacements occurring at the end of the die-stamping process. A formula for the determination of the maximum height of the C is presented. An analysis of this formula demonstrates that the C diminishes as the modulus of elasticity of the stamping backing plates is increased and the magnitude of the specific pressure during die stamping is reduced.

M. Ts.

Card 1/1

AUTHOR: Okhrimenko, Ya. M. SOV/163-58-2-27/46

TITLE: Analysis of the "Equal" Settling (Analiz "ravnomernoy" osadki)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, Nr 2, pp. 153-158 (USSR)

ABSTRACT: The analysis of the change of the nominal lateral face of cylindrical bodies was carried out on ideal and real conditions. The problem of the equal deformation where all elementary parts are subjected to the same deformation was discussed. Such a deformation is actually impossible as there is no deformation without friction. In kinematic respect the single particles in the interior of the body are not subjected to the same conditions. Various deformations are accompanied by unequal changes of the mechanical properties of the metals. The unequal character of the deformation depends on various factors, especially on the different deformation conditions in the vicinity of the surface and in the interior of the body, as well as on the different types of deformation within the flow and shrinkage zone. The unequal character of the deformation under

Card 1/2

Analysis of the "Equal" Settling

ideal conditions is of principal character and is mainly based on the deformation of the surface of the respective body. There are 3 figures, 1 table, and 4 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: December 17, 1957

AUTHOR: Okhrimenko, Ya. M. SOV/163-58-3-26/49

TITLE: The Rules Governing the Formation of Protuberances in Shrinkage (Zakonomernosti bochkoobrazovaniya pri osadke)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, Nr 3, pp 152 - 160 (USSR)

ABSTRACT: In the present paper the tin and iron samples were investigated as to the rules governing the maximum formation of protuberances, and the quality factor in the formation of these protuberances as well as the occurrence of unequal deformation in shrinkage. The index

$$\lambda = \frac{V_b}{V} \cdot 100\%$$

was found for the protuberances, where V denotes the volume of the sample, V_b the volume characterizing the protuberances. $V_b = \frac{P.D_T^3}{4} \cdot H_K$, where D_T is the diameter,

Card 1/3

H_K the height of the sample. The maximum protuberances and their position on the corresponding curves were constructed. The shrinkage of the samples with the ratio magnitudes $\frac{D_o}{H_o}$ = 0,5, 1,9, 2,7, 3,4 and 4,0 was given in figure 2. From the results obtained may be concluded that the maximum protuberances depend on the proportional magnitudes. The greater the ratio $\frac{D_c}{H_o}$ the lower λ_{max} will be located on the ordinate. The position of the maximum protuberances, i.e. the abscissa $\frac{D_o}{H_o}$ of the maximum, is determined by the two magnitudes $\frac{D_o}{H_o}$ and ε_o or $\frac{D_o}{H_o}$ and $\frac{D_{id}}{H}$. There are 5 figures, 1 table, and 6 references, 5 of which are Soviet.

Card 2/3

The Rules Governing the Formation of Protuberances in Shrinkage SOV/163-58-3-26/49

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: May 19, 1958

Card 3/3

OKHRIMENKO, Ya.M., kand. tekhn. nauk, dots.; LUSHCHIK, Ye.B.

Improved forging of crankshafts. Vest. mash. 38 no.3:85-87 Mr '58.
(Cranks and crankshafts) (Forging) (MIRA 11:2)

OKHRIMENKO, Ya. M., Doc Tech Sci (diss) -- "The basic laws of deformation in upsetting". Moscow, 1959. 26 pp (Min Higher Educ USSR, Moscow Order of Labor Red Banner Inst of Steel im I. V. Stalin), 150 copies (KL, No 23, 1959, 164)

OKHRIMENKO, Ya.M.

Size-reduction ratio during consecutive deformations in various directions caused by forging (for discussion). Kuz.-shtam. proizv. 1 no.2:5-8 F '59. (MIRA 12:10)
(Forging)

OKHRIMENKO, Ya.M.

All-Union Scientific-Industrial Conference on the Technology of Drop Forging and Cold Upsetting held in the city of Gorkiy. Kuz.-shtam.proizv. 1 no.11:48 N '59.
(MIRA 13:3)

(Forging--Congresses)

OKHRIMENKO, Ya.M.

Regularities of nonuniform deformation during upsetting. Kuz.-shtam.proizv. 1 no.12:1-5 D '59. (MIRA 13:4)
(Deformations (Mechanics)) (Forging)

S/122/60/000/004/009/014
A161/A130

AUTHORS: Zalesskiy, V.I., Professor; Korneyev, D.M.; Okhrimenko, Ya.M.; - Docents; Laguntsov, I.N., Senior Scientific Worker

TITLE: 5ХГС (5KhGS) die steel

PERIODICAL: Vestnik mashinostroyeniya, no. 4, 1960, 50 - 54

TEXT: The subject low-alloy steel for hot dies has been developed at the Moskovskiy institut stali (Moscow Steel Institute) and is by now produced by several plants. The process is standardized by TU 3657-53 (TU3657-53) specifications of Ministerstvo metallurgicheskoy promyshlennosti (Ministry of Metallurgical Industry). The chemical composition (in %) is: 0.45-0.55 C; 1.6-2.0 Cr; 0.9-1.1 Mn; 1.2-1.4 Si; up to 0.04 S, up to 0.04 P. The point in development was to eliminate the crack networks forming from alternating heat stresses in hot dies. Steels were compared not by their mechanical characteristics alone (σ_s, σ_b, ψ, α_k) but also by the resistance to hot cracking. The method of heat effect tests was a novelty, and its authors V.I. Zalesskiy, D.M. Korneyev and Ya.M. Okhrimenko obtained Author's Certificate no. 75287, with priority from January 21, 1948. The new steel is modified chromansil. It is melted in a basic open-hearth

Card 1/3

S/122/60/000/004/009/014
A161/A130

5 ХГС (5KhGS) die steel

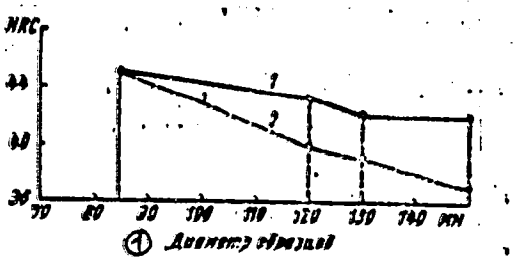
furnace. The following production process data are given: Forging in 1,150-850°C range; cooling in air; annealing in 850-870°C; quenching temperature 860-880°C, quenching in oil; tempering in 560-590°C. Hardness after tempering is HRC 38-42. The upper limit of quenching and tempering temperature relates to dies of larger dimensions (above 150 mm in diameter). The structure of this steel in the 860-880°C range is martensite. The variations of 5KhGS steel hardness with the diameter of specimens are illustrated in Figure 2. Its impact resistance at room temperature is lower than in the 5ХНМ (5KhNM), 5ХНВ (5KhNV) and 5 ХНТ (5KhNT) die steels, but in high temperature it is equal with the other grades. In drop forging tests inserts of 5KhGS steel proved more durable than inserts of 5KhNV steel (in forging 14 parts out of 18 selected for test). The information includes test data tables and figures from an ENIIPP report of 1959 on practical application of 5KhGS steel. In the average, the durability of 5KhGS steel was 10% higher. It is recommended for use after shop tests at Moskovskiy zavod malolitrazhnykh avtomobiley, or MZMA (Moscow Low-Displacement Car Plant), 1 GPZ, GAZ and Chebarkul'skiy Plant. Its dies do not contain scarce component elements, and it is twice cheaper than 5KhNB and 30% cheaper than 5KhNT. There are 3 figures, 8 tables and 2 Soviet-bloc references.

Card 2/3

S/122/60/000/004/009/014
A161/A130

5 ХГС : (5KhGS) die steel

Fig. 2: Hardness of 5 ХГС (5KhGS) steel (after quenching and tempering) in specimens of different diameters. 1 - surface; 2 - core. (1) (Diameters in mm, from 70 to 140 mm).



Card 3/3

S/148/60/000/009/008/025
A161/A030

AUTHORS: Okhrimenko, Ya.M., and Tsibanova, M.S.

TITLE: Inaccuracy of the similarity law

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no. 9, 1960, 57-61

TEXT: The simple similarity law established in 1874 by V.L.Kirpichev could be one of the fundamental laws in the theory of pressure working if it were accurate. It had been studied in application for metal pressure working by S.I.Gubkin (Ref.1-3) who confirmed the previously observed discrepancy between the specific deformation efforts for the pattern and for the workpiece. The point is that the relation of the total surface as well as of the contact surface to the volume of a body decreases with the increasing size of bodies of a similar geometrical shape. Various authors suggested various correction coefficients (S.I.Gubkin; A.P.Royev (Ref.4) S.G.Golovanov (Ref.5)). An investigation has been undertaken by the authors with geometrically similar specimens of lead with a similar relation of diameter

Card 1/5

Inaccuracy of the similarity law

to height $\frac{D_o}{H_o} = 0.5$. The specimens were upset 20% of height and the dimensions and deformation force fixed, then upset again 20%, and once more 20%. It was stated that the discrepancy from the similarity law was not the same in specimens of different height (Fig.2 and 3). The total specific surface diminishes with the increasing volume of the specimens, and more intensively in low specimens (upper curves in Fig.2 and 3). The same to a higher degree applies to the friction surface coefficient β_K which determines the intensity of contact forces. The lower the specimen the more intensively diminish the coefficients β_K and β (general coefficient of specific surface) and the more drastically change the conditions of friction. The conclusion is made that the correction coefficients (scale coefficients) used in calculations of the pressing effort and weight of dropping parts in forging hammers must be different for a different dimensions relation of pattern and workpiece. This has never been considered. It is now proven that the inaccuracy of the similarity law increases with the increasing relation $\frac{D}{H}$. The existing correction data (graphs and tables) must be

Card 2/5

S/148/60/000/009/008/025
A161/A030

Inaccuracy of the similarity law

revised. There are 3 figures and 6 Soviet-bloc references.

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: 8 December 1959

Card 3/5