ALIMDZHANOV, R.A., klinicheskiy ordinator

Case of esophageal polyp. Med.zhur.Uzb. no.10:86-87 O '58.
(MIRA 13:6)

1. Iz gospital'noy khirurgicheskoy kliniki sanitarno-gigiyenicheskogo i pediatricheskogo fakul'tetov (zav. kafedroy - L.D. Vasilenko) Tashkentskogo gosudarstvennogo meditsinskogo instituta.
(ESOPHAGUS--DISEASES)

ALIMDZHANOV, R.A.; BRONSHTEYN, TS.G.; PROSKORYAKOV, Ye.I., professor, doktor biologicheskikh nauk, otvetstvennyy redaktor; ZHURAVLEV, B.S. redaktor izdatel'stva; SHEPEL'KOV, A.T., tekhnicheskiy redaktor

[Invertebrates of Zeravshan Valley; a systematic catalog of species with an indication of the beneficial and injurious forms] Bespozvonochnye zhivotnye Zeravshanskoi doliny; sistematicheskii perechen' vidov s ukazaniem poleznykh i vrednykh form. Tashkent, Izd-vo Akademii nauk UzSSR, 1956. 348 p. (MLRA 9:10)
(Zeravshan Valley--Invertebrates)

ALIMDZHANOV, R.A.

Composition of insect fauna in the cotton regions of Uzbekistan. Dokl. AN Uz. SSR no.6:55-57 '58. (MIRA 11:9)

1. Institut zoologii i parazitologii AN UzSSR. Chlen-korrespondent AN UzSSR.
(Uzbekistan--Agricultural pests)

YAKHONTOV, Vladimir Vladimirovich; LUZHETSKIY, Aleksandr Nikolayevich [deceased]; ALIMDZHANOV, Rakhim Alimdzhanovich; NIKOLYUK, V.F., doktor biolog.nauk, otv.red.; SMOL'NIKOVA, B.Kh., red.; BARTSHVA, V.P., tekhn.red.

[Beneficial and injurious insects of Uzbekistan] Poleznye i vrednye nasekomye Uzbekistana. Tashkent, Izd-vo Akad.nauk Uzbekskoi SSR, 1960. 200 p. (MIRA 13:12)
(Uzbekistan--Insects, Injurious and beneficial)

ALIMDZHANOV, R.A., doktor biol. nauk, prof., otv. red.; GOR'KOVOY, P.I., red.; SHEPELEV, V.I., tekhn. red.

[Collection of papers on entomology] Entomologicheskiĭ sbornik. Tashkent, Izd-vo Akad. nauk SSSR, 1960. 173 p. (MIRA 16:4)

1. Tashkent. Tashkentskiy sel'skokhozyaystvennyy institut.
(Insects, Injurious and beneficial)

ALIMERKO, S.

ALIMERKO, S., Organization as a main problem in agriculture. p. 2.

Vol. 9, no. 11, November 1955 Tirane, Albania PER BUJQESINE SOCIALISTE

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 10, Oct. 1956

USSR / Diseases of Farm Animals. Diseases Caused by Bacteria and Fungi R-1

Abs Jour: Ref Zhur-Biol., No 2, 1958, 7309

Author : Kh.Sh. Alimeyev, V. M. Mitrofanov, V. M. Stesh-enko, T. M Mukanbayev.
Inst : Not Given
Title : Pathological Histology of Infectious Pleuropneumonia of Sheep.

Orig Pub: (M-vo s-kh. SSSR. Latv. s-kh. akad.) Riga, 1957, 22 str. ill.

Abstract: No Abstract.

Card 1/1

ALIMIRZOYEVA, Sh.A.

PIRVERDIYEVA, B.Z.; ALIMIRZOYEVA, Sh.A.

Effect of sulfanilamide, sulfapyridine and sulfazole on the intestinal absorption of amino acids. Trudy Vses.ob-va fiziol.biokhim. i farm. Trudy Vses.ob-va fiziol.biokhim.i farm. 2:214 '54.(MLRA 8:7)

1. Kafedra biokhimii Azerbaydzhanskogo meditsinskogo instituta.
(INTESTINES, physiology,
amino acids absorp., eff. of various sulfonamides)
(AMINO ACIDS, metabolism,
intestinal absorp., eff. of various sulfonamides)
(SULFONAMIDES, effects,
on intestinal absorp. of amino acids)

KADYROV, Ya.K.; ALIMKHANOV, O.

Quantitative determination of rovocaine amide. Uzb.khim.zhur. 9 no.1:31-33 '65. (MIRA 18:6)

1. Tashkentskiy farmatsevticheskiy institut.

ACC NR: AP6030281 (A,N) SOURCE CODE: UR/0394/66/004/008/0066/0068

AUTHOR: Alimkhanov, O. A.; Ikramov, L. T.; Kariyeva, Kh. F.

ORG: Tashkent Pharmaceutical Institute (Tashkentskiy farmatsevticheskiy institut)

TITLE: New quantitative reaction on "Fosfamide" (O,O-dimethyl S-methylcarbamidomethyl dithiophosphate)

SOURCE: Khimiya v sel'skom khozyaystve, v. 4, no. 8, 1966, 66-68

TOPIC TAGS: insecticide, ~~dimethyl-methylcarbamidomethyl-dithiophosphate~~, iodine chloride, bromine water, Froehde reagent, Millon reagent, CHEMICAL DETECTION

ABSTRACT: In a search for a specific and sensitive reagent for detecting the insecticide "Fosfamide (I), a series of compounds was tested to show that aqueous and alcoholic solutions of I gave the following characteristic reactions. 1. Microcrystalloscopic reaction with iodine chloride solution. Brown microcrystals visible under a microscope are formed instantly when a drop of 0.8% ICl solution is added to a drop of I solution. Sensitivity of the method is 12.5 γ at a dilution of 1:2000. 2. Reaction with bromine water. Characteristic microcrystals are formed in a moist chamber within 15—20 min after a drop of I solution is added to a drop of saturated aqueous Br solution. Sensitivity is 1.25 γ at 1:20,000 dilution.

Card 1/2 UDC: 544:661.718.1

ACC NR: AP6030281

At a high concentration of I, large crystals are formed instantly. 3. Reaction with Marki reagnet (1 ml concentrated H_2SO_4 + 1 drop formaldehyde). A pink color appears when a drop of the reagent is added to the test solution. Sensitivity is 10 γ at a dilution of 1:2500. 4. Reaction with Froehde's reagent. Addition of a drop of the reagent to the test solution produces a blue-green color which changes into green-yellow. Sensitivity is 12.5 γ at 1:2000 dilution. 5. Reaction with Millon's reagent. A pink color appears within 5—10 min when Millon's reagent is added to the test solution. Sensitivity is 7.5 γ at 1:3000 dilution. [WA-50; CBE No. 12]

SUB CODE: 07/ SUBM DATE: 09Nov65/ ORIG REF: 008/

Card 2/2

UZBEKOVA, B.R.; ALIMKHODZHAYEV, A.A.; SOSUNOVA, A.N.; LOPATUKHINA, L.G.

Bacteriological characteristics of Brucella cultures taken from people in Akmolinsk Province. Zdrav. Kazakh. 21 no.8:59-62 '61. (MIRA 14:9)

1. Iz Sredne-Aziatskogo protivochumnogo instituta (direktor - kand.med.nauk M.K.Tleugabylov).
(AKKOLINSK PROVINCE--BRUCELLA)

ALIMKHODZHAYEV, Kh. T.

Cand Tech Sci - (diss) "Study of waterproofed mining transport-elevator equipment with two-speed asynchronous motors." Moscow, 1961. 21 pp; with diagrams; (Inst of Mining Affairs imeni A. A. Skochinskiy); 200 copies; price not given; (KL, 10-61 sup, 212)

ALIMKHODZHAYEV, Kh.T., inzh.

Use of safety turboclutches with a one and two-speed asynchronous drive. Nauch.soob.Inst.gor.dela 7:122-127 '61. (MIRA 15:1)

(Clutches (Machinery))
(Electric motors, Induction)

ALIMKHODZHAYEV, Kh.T.

Study of turboclutches for a two-speed asynchronous electric drive. Nauch. soob. IGD 12:224-231 '61. (MIRA 15:9)
(Electric motors, Induction) (Clutches (Machinery))

ALIMKHODZHAYEV, Kh. T., inzh.

Study of the operating conditions of a constantly filling turbo-clutch with a two-speed asynchronous electric motor, relative to the operating conditions of small hoists and winches. Mekh. i avtom. v gornoi prom. no.2:282-290 '62. (MIRA 16:1)

(Mine hoisting—Electric driving)
(Clutches(Machinery)

ALIMKIN, N.I., inzhener; PEREPELITSYN, V.I., inzhener.

On the improvement of laundries and public baths in Moscow. (MLRA 7:2)
Gor.khoz.Mosk. 28 no.1:32-34 Ja '54.
(Moscow--Laundries,Public) (Laundries, Public--Moscow)
(Moscow--Baths, Public) (Baths, Public--Moscow)

ALIMKIN, N.I., inzhener; SHABANOVA, N.P., inzhener.

Shortcomings in planning communal enterprises. Gor. khoz. Mosk. 31 no.2:30 F '57. (MLRA 10:4)
(Moscow--Laundries, Public) (Moscow--Bath, Public)

ALIMKIN, N.I.

Exhibition of American laundry machinery. Gor. khoz. Mosk. 32 no.11: 36-38 N '58. (MIRA 11:11)
(Moscow--Laundry machinery--Exhibitions)

SAMOYLOV, B.A.; ALIMKIN, N.I.

Improve the organization of the system of enterprises serving public needs of the population of Moscow. Gor.khoz.Mosk. 33 no.10:4-10 O '59. (MIRA 13:2)

1. Nachal'nik Upravleniya bytovogo i kommunal'nogo obsluzhivaniya Mosgorispolkoma (for Samoylov). 2. Glavnyy inzhener Upravleniya bytovogo i kommunal'nogo obsluzhivaniya Mosgorispolkoma (for Alimkin).

(Moscow--Public services)

ALIMKIN, N.I.; SHCHICHILIN, K.I.

Beaches and marinas. Gor.khoz.Mosk. 34 no.6:15-18 Je '60.
(MIRA 13:7)

1. Zamestitel' nachal'nika Upravleniya bytovogo i kommunal'nogo obsluzhivaniya (for Alimkin). 2. Nachal'nik otdela ekspluatatsii Upravleniya bytovogo i kommunal'nogo obsluzhivaniya (for Shchuchilin).
(Moscow region--Bathing beaches)
(Moscow region--Marinas)

ALIMKIN, N.

Service industries of the capital. Mest.prom.i khud.promys. 2 no.10:30-31 O '61. (MIRA 14:11)

1. Zamestitel' nachal'nika upravleniya bytovogo i kommunal'nogo obsluzhivaniya ispolkoma Mossoveta.
(Moscow--Service industries)

SAMOYLOV, B.A.; ALEKIN, N.I.

Let's exemplarily organize the system of enterprises serving public needs. Gor. khoz. Mosk. 35 no.2:23-25 F '61. (MIRA 14:2)

1. Nachal'nik Upravleniya bytovogo i kommunal'nogo obsluzhivaniya Mosgorispolkoma (for Samoylov). 2. Zamestitel' nachal'nika Upravleniya bytovogo i kommunal'nogo obsluzhivaniya Mosgorispolkoma (for Alimkin).

(Moscow—Municipal services)

ALIMKIN, N.I.

Public services; present state and prospects. Gor.khoz.Mosk. 36 no.12:22-25 D '62. (MIRA 16:2)

1. Zamestitel' nachal'nika Upravleniya bytovogo i kommunal'nogo obsluzhivaniya g. Moskvy.
(Municipal services)

ALIMOCHKIN, V.K.; IVASHCHENKO, T.F.; LYUBAVIN, Yu.P.; OVCHINNIKOV, A.K.; SHISHKULIN, A.N.

Multiparameter, simultaneously recording, logging apparatus MAK for complex geophysical studies of holes in ore deposits. Vop.rud.geofiz. no.3:119-146 '61. (MIRA 15:8)
(Logging (Geology)---Equipment and supplies)

ALIMOCHKIN, V.K.; ZOLOTNITSKIY, V.A.; IVASHCHENKO, T.F.; KOLESOV, B.M.; LYUBAVIN, Yu.P.; OVCHINNIKOV, A.K.

Separate determination of the clarke of potassium and the total of heavy radioactive elements. Sbor. st. MGiON no.1:93-99 '62. (MIRA 16:3)

(Radioactive prospecting)

OVCHINNIKOV, A.K.; IVASHCHENKO, T.F.; KHAYKOVICH, I.M.; ZOLOTNITSKIY, V.A.; ALIMOCHKIN, V.K.; ALEKSEYEV, V.V., otv. red.; BORUSHKO, T.I., red. izd-va; BYKOVA, V.V., tekhn. red.

[Instructions on gamma logging in prospecting for uranium deposits] Instruktsiia po gamma-karotazhu pri poiskakh i razvedke uranovykh mestorozhdenii. Moskva, Gosgeoltekhizdat, 1963. 133 p. (MIRA 16:8)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy geologicheskiy komitet.
(Uranium ores) (Radioactive prospecting)

ACC NR: AP6021442 SOURCE CODE: UR/0413/66/000/011/0049/0049

INVENTORS: Ovchinnikov, A. K.; Andreyev, P. F.; Alimochkin, V. K.; Gubanov, V. G.; Zolotnitskiy, V. A.; Kolesov, B. N.

ORG: none

TITLE: A method for geophysical investigation of drill holes. Class 21, No. 182255 /announced by All-Union Scientific Research Institute of Geophysical Exploration (Vsesoyuznyy nauchno-issledovatel'skiy institut razvedochnoy geofiziki)/

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 11, 1966, 49

TOPIC TAGS: geologic exploration, geophysics, geochemistry

ABSTRACT: This Author Certificate presents a method for geophysical investigation of drill holes. The method is based on measuring the oxidizing-reducing potentials of rocks. To determine accurately the geological section of the drill hole, the walls of the hole are treated with a chemical reagent, such as hydrochloric acid, which intensifies the natural oxidizing-reducing potentials by changing the insoluble mineral forms of elements with variable valences into a soluble state. After a certain time, sufficient for dissolving the rocks, the artificially intensified oxidizing-reducing potentials are measured by the method of recording the potentials of the internal polarization.

SUB CODE: 08, 13/ SUBM DATE: 30Mar64

Card 1/1 UDC: 550.837:622.241

ALIMOV, A.

Heterogenic crossings in silkworm hybridization. Uzb.biol.zhur. no.5:50-54 '59. (MIRA 13:4)

1. Nauchno-issledovatel'skiy institut shelkovodstva.
(SILKWORM BREEDING)

ALIMOV, A., Cand. Agri. Sci. "Heterogenous Selection of Parental Pairs for Mulberry Silkworm," Tashkent, 1961, 23 pp. (Tashkent Agri. Inst.) 250 copies (KL Supp 12-61, 278).

ALIMOV, A.

Contribution of the workers of Soviet Uzbekistan. Komm.Vooruzh. Sil 1 no.18:59-62 S '61. (MIRA 14:9)

1. Predsedatel' Soveta ministrov Uzbekskoy SSR.
(Uzbekistan--Economic conditions)

16.8000

S/167/61/000/005/002/003
D249/D302

AUTHOR: Alimov, A.

TITLE: The new Shur-Arzhanykh stability inequalities

PERIODICAL: Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya tekhnicheskikh nauk, no. 5, 1961, 25-29

TEXT: By using Shur's theorem [Abstractor's note: Shur's theorem not stated] I.S. Arzhanykh (Ref. 1: Avtomatika i telemekhanika, no. 4, 1961) derived new stability inequalities for solving systems of linear differential equations of the type.

$$\frac{d\xi_s}{dt} = \sum_{r=1}^{n} p_{sr}(t)\xi_r, \quad s = \overline{1, n}, \qquad (1)$$

Card 1/2

The new Shur-Arzhanykh ...

p_{sr} being single-valued, single-periodic functions, all having the same period. The paper gives in explicit form (without derivation) the corresponding inequalities for systems of the second, third, fourth, fifth and sixth order.

ASSOCIATION: Institut matematiki im. V. I. Romanovskogo, AN UzSSR (Institute of Mathematics im. V.I. Romanovskiy, AS UzbekSSR)

SUBMITTED: June 1, 1961

Card 2/2

16.6500

3853
S/044/62/000/005/050/072
C111/C444

AUTHOR: Alimov, A.

TITLE: Formulas for approximative calculation of double integrals over a domain (D), included by the hyperbola $\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$ and the straight line x = c.

PERIODICAL: Referativnyy zhurnal, Matematika, no. 5, 1962, 45, abstract 5V219. ("Sb. nauchno-issled. rabot. Tashkentsk. tekstil'n. in-t", 1960, no. 9, 25-29)

TEXT: By aid of polynomials which the less deviate form zero, one obtains formulas of the kind

$$\iint_{(D)} f(x,y)\,dx\,dy \approx \left(\frac{bc}{a}\sqrt{c^2-a^2} - \frac{ab}{2}\ln\frac{c+\sqrt{c^2-a^2}}{c-\sqrt{c^2-a^2}}\right)\times$$

$$\times f\left(\frac{4(c^2-a^2)\sqrt{c^2-a^2}}{3\left(2c\sqrt{c^2-a^2} - a^2\ln\frac{c+\sqrt{c^2-a^2}}{c-\sqrt{c^2-a^2}}\right)}, 0\right).$$

[Abstracter's note: Complete translation.]

Card 1/1

ALIMOV, Arif Alimovich; GUDKOVA, N., red.; MUKHIN, Yu., tekhn.red.

[Tomorrow of Uzbekistan] Zavtrashnii den' Uzbekistana. Moskva, Gos.izd-vo polit.lit-ry, 1959. 92 p. (MIRA 13:3)

1. Predsedatel' Soveta Ministrov Uzbekskoy SSR (for Alimov).
(Uzbekistan--Economic policy)

ALIMOV, Arif Alimovich; DORMANOV, I.Ye., red.; MALIKOVA, L.A., red.; DORODNOVA, L.A., tekhn.red.

[The Uzbek S.S.R.; story about the seven-year plan] Uzbekskaia SSR; rasskaz o semiletke. Moskva, Vses.uchebno-pedagog.izd-vo Proftekhizdat, 1960. 100 p. (MIRA 13:10)

1. Predsedatel' Soveta ministrov Uzbekskoy SSR (for Alimov).
(Uzbekistan--Economic policy)

RASHIDOV, Sh.; ALIMOV, A.; KORTUNOV, A.

To the Central Committee of the Communist Party of the Soviet Union, the Council of Ministers of the Soviet Union, and to Comrade N.S. Khrushchev, First Secretary of the Communist Party of the Soviet Union and Chairman of the Council of Ministers of the Soviet Union. Stroi. truboprov. 6 no. 2:2 F '61. (MIRA 14:5)

1. Sekretar' TSentral'nogo komiteta Kommunisticheskoy partii Uzbekistana (for Rashidov). 2. Predsedatel' Soveta Ministrov Uzbekskoy SSR (for Alimov). 3. Nachal'nik Glavgaza SSSR (for Kortunov).

(Uzbekistan—Gas, Natural)

FROLOV, B.; ALIMOV, A.

At the Chardzhou automotive transportation unit. Avt. transp. 42 no.10:31 O '64. (MIRA 17:11)

1. Direktor Chardzhouskogo avtoparka (for Frolov). 2. Glavnyy inzh. Chardzhouskogo avtoparka (for Alimov).

ALIMOV, A.

New stability inequalities of Shur - Arzhanykh. Izv. AN Uz.SSR Ser.tekh.nauk no.5:25-29 '61. (MIRA 14:11)

1. Institut matematiki imeni V.I. Romanovskogo AN UzSSR.
(Inequalities (Mathematics))
(Differential equations)

ALIMOV, A.

Developing formulas for approximate calculation of double integrals in the area (D) representing a hyperbola $\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$ and of the straight line $X = C$. Sbor.nauch.-issl.rab. TTI no.9:25-29 '60. (MIRA 15:6)
(Integrals, Multiple)

ALIMOV, A.; ARZHANYKH, I.S.

Some sufficient conditions of stability. Izv.AN Uz.SSR. Ser.tekh.nauk no.4:30-38 '62. (MIRA 15:7)

1. Institut matematiki imeni V.I. Romanovskogo AN UzSSR.
(Stability)

ALIMOV, A.

Shur-Arzhanykh polynomials and new stability inequalities for n = 3, 4, 5, 6, 7. Sbor. nauch.-issl. rab. TTI no.15:137-162 '62. (MIRA 16:9)

ALIMOV, A. A.

"Molecular weight of the amino acids in silk," a paper presented at the 9th Congress on The Chemistry and Physics of High Polymers, 28 Jan-2 Feb 57, Moscow, Ivanov Research Inst.

B-3,084,395

ALIMOV, A.A., dots.

Determining the molecular weight of silk sericin by osmosis.
Sbor. nauch.-issl. rab. TTI no.3:26-30 '56. (MIRA 11:9)
(Sericin)

ALIMOV, A.A., dots.

Determining the amino acid composition of natural silk sericin by paper chromatography. Sbor. nauch.-issl. rab. TTI no.3:31-35 '56. (MIRA 11:9)
(Amino acids) (Sericin) (Paper chromatography)

L 52578-65 EWT(m)/EWP(i)/EWP(t)/EWP(b) JD

ACCESSION NR: AP5012030 UR/0377/65/000/001/0066/0067

AUTHOR: Umarov, G. Yu.; Kordub, N.V.; Klyucheveskiy, Yu. Ye.; Ilimov, A.A.; Tret'yakova, Yu. I.

TITLE: Hexagonal honeycomb film concentrator of solar rays

SOURCE: Geliotekhnika, no. 1, 1965, 66-67

TOPIC TAGS: film concentrator, solar energy converter, honeycomb film concentrator, faceted film reflector

ABSTRACT: A faceted hexagonal film reflector was developed at the Fiziko-tekhnicheskiy institut AN UzSSR (Physics and Engineering Institute, AN UzSSR). The concentrator was built in the shape of a paraboloid of revolution from individual hexagonal facets (66 pieces) and was 1 m in diameter. The facets consisted of metallized film mirrors with a reflection coefficient of 0.86. The technique employed in putting the facets together is described in detail. A concentrator of such design opens up new paths to the creation of high-energy devices for converting solar energy into other forms of energy. The cost of such film honeycomb concentrators of solar rays is many times lower than the cost of existing concentrators of analogous types; the technique of construction is simple and permits the creation of concentrators of large size and any

Card 1/2

L 52578-65

ACCESSION NR: AP5012030

configuration. Orig. art. has: 1 figure.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UzSSR (Physics and Engineering Institute, AN UzSSR)

SUBMITTED: 16Nov64 ENCL: 00 SUB CODE: EE

NO REF SOV: 005 OTHER: 000

Card 2/2

STREL'NIKOV, D.A., prof., doktor; ALIMOV, A.D., dotsent, kand.tekhn.nauk; RYZHKOV, Yu.A., inzh.

Characteristics of the expansion and achievements of coal mining in the Chinese People's Republic. Ugol' 35 no. 12:54-55 D '60. (MIRA 14:1)

(China--Coal mines and mining)

ACCESSION NO: AP4013025

S/0166/63/000/006/0051/0057

AUTHORS: Alimov, A. D.; Khodzhayev, L. Sh.

TITLE: Integral equation for "pion-pion" photoproduction.

SOURCE: AN UzSSR. Seriya fiziko-matematicheskikh nauk, no. 6, 1963, 51-57

TOPIC TAGS: integral equation, pion photocreation, Mandelstam representation, Cini Fubini approximation, differential method, P wave amplitude

ABSTRACT: An integral equation for the amplitude of the process $\gamma\pi \to \pi\pi$ is derived starting from the Mandelstam representation for the amplitude of pion photocreation at pions (S. Mandelstam. Phys. Rev., t. 112, 1344, 1959) and applying the Cini-Fubini approximation. Application of the differential method of A. V. Yefremov, Chu Hung-yuan', L. V. Shirkov (Preprint OIYaI, D-757, 1961) leads to an integral equation for the amplitude of the P-wave which has the form:

$$F_1(\nu) = \frac{1}{\pi}\int_0^\infty d\nu' \frac{F_1(\nu')\rho^*(\nu')}{\nu' - \nu - i\varepsilon} +$$

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ACCESSION NO: AP4013025

$$+\frac{1}{\pi}\int_0^\infty dv' F_1(v')\rho^0(v')\left[\frac{v'+\frac{v}{2}+\frac{9}{8}\mu^2}{\left(v'+\frac{v}{2}+\frac{9}{8}\mu^2\right)^2-\frac{v}{v+\mu^2}\left(\frac{v}{2}+\frac{3}{8}\mu^2\right)^2}\right]. \quad (21)$$

where ρ is the amplitude of the process $\pi\pi\to\pi\pi$, $v'=\frac{s'}{4}-\mu^2$; $v=q^2$; and $s=-(k+q_1)^2=-(q_2+q_3)^2$, the square of the energy. Orig. art. has: 46 equations and 2 diagrams.

ASSOCIATION: Institut yadernoy fiziki AN UzSSR (Institute of Nuclear Physics AN UzSSR)

SUBMITTED: 24Apr63 DATE ACQ: 03Mar64 ENCL: 00

SUB CODE: PH, MM NO REF SOV: 006 OTHER: 010

Card 2/2

ALIMOV, A.F.

Filtration ability of molluska of the genus Sphaerium (Scopoli). Dokl. AN SSSR 164 no.1:195-197 S '65. (MIRA 18:9)

1. Zoologicheskiy institut AN SSSR. Submitted November 16, 1964.

ALIMOV, A.F.

Oxygen consumption by the mollusk Sphaerium corneum (L.).
Zool.zhur. 44 no.10:1558-1562 '65.

(MIRA 18:11)

1. Zoologicheskiy institut AN SSSR, Leningrad.

ALIMOV, A-G

Mixing of Metal and Slag in Open-Hearth Furnaces. A. I. Dajnov, L. A. Shvartsman, M. I. [illegible] and A. G. Alimov. (Stal', 1955, (1), 709-713). [In Russian]. In the investigation described the mixing of metal and slag under the conditions prevailing in 350-ton O.H. furnaces was studied with the aid of radioactive phosphorus. Very small additions became uniformly distributed throughout the slag and metal in 60-70 min. The curves of distribution against time indicate the diffusional nature of the process, and an estimate has been made of the coefficient of turbulent diffusion of phosphorus in liquid steel. The tracer technique worked satisfactorily and further experiments with radioactive elements which do not pass between the liquid phases (e.g. cobalt and calcium) are envisaged.—S. K.

ALIMOV, A. G., VOROPAYEV, V. A. and YEFEMOV, V. A.

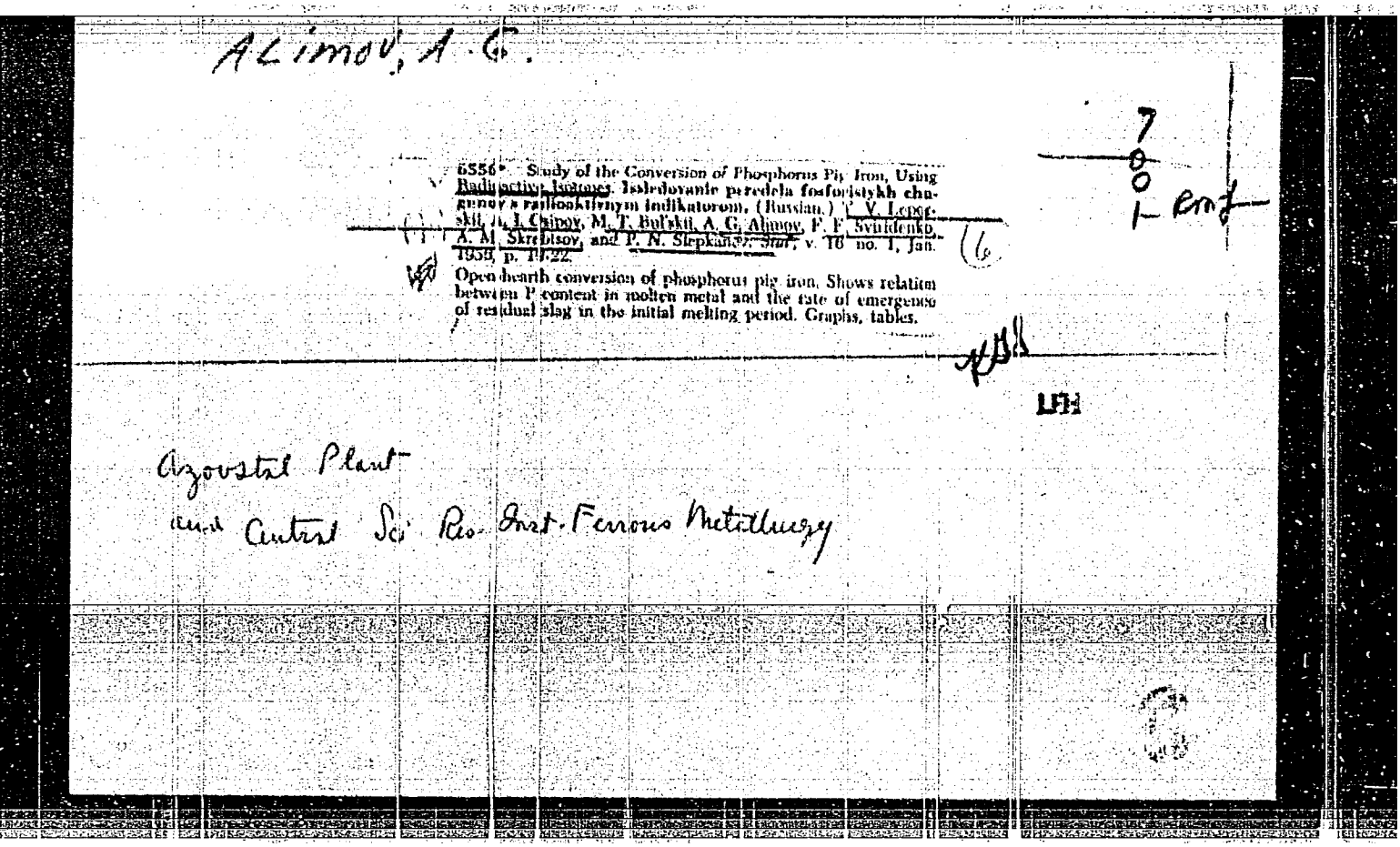
"Measure According to Reduction of Boiling Metal Ingots to Molds" p. 130, Trudy Instituta Chernoy Metallurgii, Vol. 9, 1955.

Investigation of the Crystallization of Steel with the Aid of Radioactive Indicators. L. M. Efimov, M. I. Bulskii, V. I. Yakushin, A. G. Alimov, and A. M. Skrebtsov. (*Stal'*, 1955, (12), 1090–[illegible] Russian). Radiography of sections has been successfully applied to the study of steel crystallization in ingots. The method indicated reliably the crystallization boundary for the portion of the ingot above the point at which the tracer was introduced. It was found that at each level in the ingot crust, growth in the initial period followed the square-root law "approximately". The solidification coefficient K depended on the position of the section, falling regularly towards the top where its values were about 1·6 cm/min$^{-\frac{1}{2}}$. The relation between rate of crystallization and height was confirmed by the temperature distribution in the mould wall at various times after filling.—S. K.

ALIMOV, A. G.

New method of rapid analysis of slag for phosphorus with -the use of a radioactive indicator. A. I. Osipov, I. Yu. Kozhevnikov, V. Ye. Yudin, M. L. Sazonov, M. G. Bul'skiy, A. G. Alimov, A. M. Skreptsov, and A. P. Ryabenko. Zavodskaya Lab. 21, 391-5(1955).--P^{32} is introduced into the melt by packaging its mixts. with powd. Fe in sealed Cu tubes, which are then inserted into the mass of molten metal and are thus dissolved with distribution of P^{32} through the mass during production of cast iron. Slag samples are analyzed for P by the conventional counting technique. Detailed description of the counting app. is given.

G. M. Kosolapoff



Alimov, A. G.

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6556* Study of the Conversion of Phosphorus Pig Iron, Using Radioactive Isotopes. Issledovanie peredela fosforistykh chugunov s radioaktivnym indikatorom. (Russian.) V. V. Lepeshkii, N. I. Chipov, M. T. Bul'skii, A. G. Alimov, F. F. Svinarenko, A. M. Skrebtsov, and P. N. Stepkanov. Stal', v. 18 no. 1, Jan. 1958, p. 17-22.

Open hearth conversion of phosphorus pig iron. Shows relation between P content in molten metal and the rate of emergence of residual slag in the initial melting period. Graphs, tables.

(6)

LFH

Azovstal Plant
and Central Sci Res. Inst. Ferrous Metallurgy

137-58-1-2109

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 286 (USSR)

AUTHORS: Osipov, A. I., Kozhevnikov, I. Yu., Iudin, V. Ye., Sazanov, M. L., Bul'skiy, M. T., Alimov, A. G., Skrebtsov, A. M., Rebenko, A. P.

TITLE: A New Method for Speedy Analysis of Slag for Phosphorus by Means of Radioactive Tracers (Novyy metod ekspress-analiza shlaka na fosfor s primeneniyem radioaktivnykh indikatorov)

PERIODICAL: V sb.: Fiz.-khim. osnovy proiz-va stali. Moscow, AN SSSR, 1957, pp 82-93. Diskus. pp 160-187

ABSTRACT: A method has been developed for speedy analysis of slag for P_2O_5 by means of radioactive P (I). The analysis requires 5-7 min. The method is accurate to within 5-6 percent (rel.). The consumption of material is 0.04-0.05 millicurie per t of metal. To determine P_2O_5, I is introduced into the heat in a mixture with powdered Fe. The mixture is placed in a Cu ampoule and the I with the Fe form ferrophosphorus during the period of heating and fusion. This then undergoes uniform dissemination throughout the volume of the heat. Determination of P_2O_5 by radiometry requires one tagged sample in which the P_2O_5 is

Card 1/2

137-58-1-2109

A New Method for Speedy Analysis of Slag for Phosphorus (cont.)

determined chemically. A graph showing determination of P_2O_5 by radiometry as compared with the data of chemical analysis is presented. The employment of radiometric analysis of slag for P_2O_5 makes it possible to take and analyze a large number of samples of slag in the course of a heat.

K. K.

1. Slag analysis--Processes

Card 2/2

SOV/137-58-12-24176

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 12, p 36 (USSR)

AUTHORS: Skoblo, S. Ya., Bul'skiy, M. T., Kiryushkin, Yu. I., Alimov, A. G., Pereverzeva, Ye. G., Sviridenko, F. F.

TITLE: Visual Slag Control in High-phosphorus Pig-iron Conversion (Vizual'nyy kontrol' shlaka fosforistogo peredela)

PERIODICAL: Sb. nauchn. tr. Zhdanovsk. metallurg. in-t, 1957, Nr 4, pp 61-76

ABSTRACT: The basicity and degree of oxidation of a slag cake cast into an iron sampler is estimated by the appearance of its upper and lower surface and its fracture. The basicity indicator chosen for open-hearth slags in conversion of high-phosphorus pig iron is $V_1 = CaO/SiO_2 + P_2O_5$. The % ratio of P_2O_5 and Fe to V_1 is empirically expressed in the form $P_2O_5\% = 68/V_1 + 2.5$, and $\Sigma(Fe) = 1.5 + 4V_1$. An analogous connection is established between the sum of P_2O_5 and SiO_2 and $\Sigma(Fe)$. Visual determination of V_1 makes it possible to determine P_2O_5 and $\Sigma(Fe)$ % in slags to an accuracy adequate for all practical purposes. Toward this end, a standard scale by slag sub-groups is established, permitting determination of V_1 to an accuracy of ± 0.2-$0.3V_1$. A description and photographs of slag cakes of various basicities is

Card 1/2

Visual Slag Control in High-phosphorus Pig-iron Conversion

established, and the identifying characteristics of a slag cake permitting deformation of up to 0.03% P before deoxidation are presented.

Yu. K.

Card 2/2

ALIMOV, A. G.

BUL'SKIY, M.T., inzhener; SVIRIDENKO, F.F., inzhener; ALIMOV, A.G., inzhener; DOLINENKO, O.V., inzhener.

Rail steel ingot weighing 9.75 tons. Stal' 17 no.4:305-310 Ap '57. (MLRA 10:5)

1.Zavod "Azovstal'".
(Steel ingots) (Railroads--Rails)

ALIMOV, A.G.

SOV/130-58-8-5/18

AUTHORS: Shneyerov, Ya.A., Derfel', A.G., Kotin, A.G., Byl'skiy, M.T. and Alimov, A.G.

TITLE: Pre-refining Pig Iron in Ladles with a Steam-oxygen Mixture (Predvaritel'naya obrabotka chuguna v kovshakh parokislorodnoy smes'yu)

PERIODICAL: Metallurg, 1958, Nr 8, pp 11 - 14 (USSR)

ABSTRACT: At the "Azovstal'" Works, hot metal forms 75% of the open-hearth furnace charge and conditions are therefore particularly suitable for pre-refining. A semi-full-scale installation (Figure 1) was constructed in the mixer house at the works. The authors describe tests on 130 ladles (114 phosphoric and 16 ordinary open-hearth grade). With 20-40% steam evolution of brown fumes was avoided. The following additions (in % of the weight of phosphoric iron) were also tested: limestone 1.5 and 3 with 1% ore in the latter case; ore, 2.5 and 5%; ore and limestone, 1.5 and 2.5% each. With the ordinary grade: limestone, 1.5; ore 1.5; ore and limestone 1.5 each. The authors describe the effects of the different additions on iron composition and lance consumption (which is associated with the formation of slag capable of coating the lance). With increasing consumption of

Card1/3

Pre-refining Pig Iron in Ladles with a Steam-oxygen Mixture

oxygen per ton of metal (3-8 nm^3), oxidation of manganese and silicon increases. Steam consumption was regulated to prevent fume formation; the highest oxygen: steam ratios were obtained with large amounts of additions, which produced a protective slag layer. Both top blowing and lancing were tried, tube consumptions being 300-400 and 100 mm, respectively, per lancing. Temperatures were measured with platinum/platinum-rhodium thermocouples: the mean temperature rise during the lancing was 25-70 °C, the rise with additions being greater because of the greater oxidation of silicon. Analysis of the metal showed that good mixing occurred during mixing. Metal losses were as follows: splashes, 0.51%, evolution in fume 0.04%. The hydrogen content of the metal was found to rise during lancing from 2.3 - 3.9 to 4.6 - 6.0 cm^3/100 g, falling during pouring into the mixer to 4.2 - 4.3 cm^3/100 g

Card 2/3

SOV/130-58-8-5/18

Pre-refining Pig Iron in Ladles with a Steam-oxygen Mixture

There are 2 figures.

ASSOCIATIONS: Ukrainskiy institut metallov (Ukrainian Institute of Metals) and Zavod "Azovstal'" ("Azovstal'" Works)

Card 3/3

1. Iron--Production 2. Open hearth furnaces--Operation
3. Dippers--Applications

SOV/133-58-8-6/30

AUTHOR: Shneyerov, Ya.A., Derfel', A.G., Kotin, A.G., Bul'skiy, M.T. and Alimov, A.G.

TITLE: Experiments on a Pre-treatment of Pig Iron in Ladles with a Steam Oxygen Mixture (Opyt predvaritel'noy obrabotki chuguna v kovshakh parokislorodnoy smes'yu)

PERIODICAL: Stal', 1958, Nr 8, pp 694 - 702 (USSR)

ABSTRACT: Experimental results obtained on the de-siliconisation of pig iron in ladles by blowing an oxygen-steam mixture with and without various additions to the ladle are described. The treatment was carried out on the way to the mixer in the open-hearth melting shop. The experimental set-up is shown in Figure 1. Initially, blowing of pure oxygen was tried but, due to the formation of copious fumes, this was discontinued and an oxygen-steam mixture was used, steam being added according to blowing conditions to keep the formation of fumes down. The method of mixing oxygen with steam is shown in Figure 2 and the sampling device for taking samples from the ladles in the course of blowing - Figure 3. Additions of ore, limestone and ore-limestone mixtures to the ladle were introduced at blast furnaces during the filling of the ladle with iron. The compositions

Card1/5

Experiments on a Pre-treatment of Pig Iron in Ladles with a Steam Oxygen Mixture

of additions and mean data on the elimination of pig-iron impurities during filling of the ladle, its transport to the mixer and during 15, 30 and 45 minutes of blowing oxygen, as well as mean iron temperatures before and after blowing are given in Tables 1 and 2. The dependence of the degree of de-siliconisation during 45 minutes of blowing on the initial concentration of silicon - Figure 4 and on the consumption of oxygen - Figure 5; mean consumption of oxygen and steam and limits of their variation for blowing with various additions to the ladle - Table 3; the dependence of oxidation of manganese during 45 minutes of blowing on the consumption of oxygen - Figure 6; the fall of the iron temperature during filling of the ladle and its transport to the place of the treatment - Table 4; the influence of the oxygen-steam ratio on the increase of the iron temperature during 45 minutes of blowing - Figure 7; changes in the chemical composition of iron along the height of the ladle after blowing - Table 5. Conclusions: 1) as a result of blowing phosphorus pig-iron (about 1.5% of P) in the ladle with an oxygen-steam mixture at a specific

Experiments on a Pre-treatment of Pig Iron in Ladles with a Steam Oxygen Mixture

consumption of oxygen of 4.8 m^3/t and of steam 4.0 kg/t at a pressure of 4.5 atm., the following elements are oxidised: 0.20% of silicon (41.5% of the initial content), 0.55% of manganese (29.5% of the initial content), and 0.29% of carbon (7.3% of the initial content). During the transport of the ladle, the content of sulphur was decreased by 0.027% and during blowing it was increasing by 0.003, thus the decrease in the sulphur content was 0.024% (21.2% of the initial content). The content of phosphorus remains practically unchanged. On blowing low phosphorus iron, the oxidation of iron admixtures was on the same level as for phosphorus iron; 2) the introduction of oxidising and slag-forming admixtures into the ladle during its filling with iron helped in oxidising the iron admixtures during the filling and the transport of the ladle and noticeably improved their oxidation during the blowing of oxygen. The best results in respect of the oxidation of admixtures, utilisation of oxygen and increasing the iron temperature were obtained with additions of 15 kg of ore and 15 kg of limestone per ton of iron. Under the above conditions, the

Experiments on a Pre-treatment of Pig Iron [illegible]OY/133-58-8-6/30
Oxygen Mixture

following results were obtained (in brackets the percent of the initial content):

	Si	Mn	C	S
Phosphorus Iron	0.44(66.7)	0.78(40.0)	0.31(8.0)	0.023(19.0)
Usual iron	0.52(73.5)	0.62(30.5)	0.20(4.5)	0.025(26.0).

During surface blowing of oxygen (without immersing the tube into the iron), the oxidation of the elements remained the same; 3) on blowing with oxygen-steam mixture (20-40% by wt. of steam) the formation of brown fumes was not observed. With an increasing proportion of additions to the ladle the consumption of steam in the oxygen steam mixture was decreasing. On blowing without immersing the tube the proportion of steam can be decreased to 20%; 4) the increase in the iron temperature during surface blowing is higher than when blowing with an immersed tube. The temperature of the iron after blowing with the optimum additions of limestone and ore is 40 °C higher than the usual iron temperature delivered to the mixer; 5) the maximum utilisation of the volume of the ladle (up to 85%) was obtained

Card4/5

Experiments on a Pre-treatment of Pig Iron in Ladles with a Steam Oxygen Mixture

on surface blowing (with 15 kg/t additions of limestone and ore); 6) the consumption of blowing tubes was 100 mm for ladle with surface blowing and 300-400 mm when the tube is immersed; 7) the total losses of metal on blowing were about 0.15%.
There are 7 figures, 5 tables and 7 references, 3 of which are Soviet and 4 English.

ASSOCIATIONS: Ukrainskiy institut metallov (Ukrainian Institute of Metals) and Zavod "Azovstal'" ("Azovstal'" Works)

Card 5/5

1. Iron--Production 2. Silicon--Oxidation 3. Oxygen --Applications 4. Steam--Applications 5. Dippers--Applications

SOV/133-58-8-8/30

AUTHORS: Kharitonov, A.S., Candidate of Technical Sciences, Docent, Bul'skiy, M.T., ~~Alimov, A.G.,~~ Glinkov, G.M. and Beloglovskiy, M.Sh., Engineers

TITLE: Optimum Temperature Conditions for Smelting Rimming Steel from Phosphorus Pig Iron (Optimal'nyy temperaturnyy rezhim vyplavki kipyashchey stali iz fosforistogo chuguna)

PERIODICAL: Stal', 1958, Nr 8, pp 706 - 709 (USSR)

ABSTRACT: An outline of the smelting practice of rimming steels used in the Azovstal' Works is given. On the basis of an analysis of the temperature data during the refining period of a large number of heats, the optimum metal temperature at the beginning of boiling and before deoxidation was established in order to obtain steel with a low consumption coefficient. The influence of the charging rate of additions during the refining period on the velocity of heating of metal - Figure 1; the influence of the metal temperature at the beginning of pure boiling on the number of ladles of metal of low and high consumption coefficients - Figure 2; the influence of metal temperature before deoxidation on the number of ladles of metal of high and low consumption coefficients - Figure 3;

Card1/2

Optimum Temperature Conditions for Smelting Rimming Steel from Phosphorus Pig Iron

SOV/133-58-8-8/30

the influence of the [Mn] : [C] ratio in the finished rimming steels on the consumption coefficient of metal - Figures 4 and 5 (A); frequency distribution of the number of ladles of steel with different [Mn] [C] ratios - Figure 5 (B). It was also established hat it is advantageous to produce rimming steel with the manganese content in the ladle sample near to the lower limit permitted by standards and that the ratio of [Mn] [C] in the finished steel should not exceed 2.7 for steels StO, 1 and 2kp and 2.5 for steel St3kp. There are 5 figures and 3 Soviet references.

ASSOCIATIONS: Zhdanovskiy metallurgicheskiy institut (Zhdanov Metallurgical Institute) and Zavod "Azovstal'" ("Azovstal'" Works)

Card 2/2 1. Steel--Producton 2. Steel--Temperature factors

SOV/130-58-12-9/21

AUTHORS: Bul'skiy, M.T., Kalashnikov, A.G., Beloglovskiy, M.Sh. and Alimov, A.G.

TITLE: The Structure of Rimming-Steel Ingots (Ostrukture slitkov kipyashchey stali)

PERIODICAL: Metallurg, 1958, Nr 12, pp 20-22 (USSR)

ABSTRACT: Rimming steel with under 0.37% C and 0.7-1.0% Mn has been produced at the "Azovstal'" works since 1955 and accounts for 60% of total output. The authors give reductions in metal loss obtained by substituting semi-killed steel for killed steels. They tabulate melting and teeming data and analyses for two heats of type 0metiz, 1 of type 3 kp and 1 of type 5 kp steels, and go on to compare the structures of the corresponding 6.8-tonne ingots. The compositions of ladle samples were, respectively: 0.10, 0.07, 0.22 and 0.36% C; 0.30, 0.47, 0.42 and 0.71% Mn; 0.052, 0.038, 0.049 and 0.03% S; 0.036, 0.03, 0.032 and 0.038% P; 0.135, 0.112, 0.140 and 0.138% As. The durations of effervescence in the ingot moulds were, respectively, 30, 15, 15 and 3 minutes. The structures of longitudinal axial fractures of the ingots (Figs 1, 2)

Card 1/2

show that by following the main points of specified melting and pouring procedures sound ingots can be obtained, securing minimal metal consumption in rolling. The authors suggest that, in view of the quality of 5 kp steel ingots, this steel should be more widely used.

There are 2 figures and 1 table.

ASSOCIATION: "Azovstal'" works

ALIMOV, A.G.

AUTHORS: Skobl:, S.Ye., Kazachkov Ye.A., Pereverzeva Ye.G., Kirpichkin Ye.I., Strakhov V.G., Sviridenko F.P., Bul'skiy M.Y., and ALIMOV A.G. SOV/130-59-1-8/21

TITLE: Quality of a Rail-Steel Ingot weighing 9.75 Tonnes (Kachestvo slitka rel'sovoy stali vesom 9.75 t)

PERIODICAL: Metallurg, 1959, Nr 1, p 19 (USSR)

ABSTRACT: At the "Azovstal'" works rail-steel ingot weight has been increased for 6.6 to 9.75 tonnes to increase casting-pit capacity and improve the utilization of rolling mill capacity. The authors give a brief description of the results of comparative investigations of large and small ingots. The quality was evaluated from sulphur prints of longitudinal ingot sections, from the macro-structure (with deep etching) of transverse strips, differences in the etching of samples from different zones of the ingot and distribution of segregated impurities and non-metallic inclusions in the ingot. Among the conclusions drawn are that the two ingot types are equal in physical, structural and chemical heterogeneity, the non-metallic inclusions in the large ingot do not exceed those in a sound 4.5-tonne rail-steel ingot; the amount of non-metallic inclusions, which greatly affect the mechanical properties, can be reduced by careful preparation of runner and ladle.

Card 1/2

Card 2/2

ASSOCIATION: Zhdanovskiy metallurgicheskiy institut (Zhdanov metallurgical institute) and the "Azovstal'" works

Alimov, A. G.

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SOV/133-60-1-8/30

18.3200

AUTHORS: Shneyerov, Ya. A., Leporskiy, V. V., Dorfel', A. G., Bal'shiy, M. T., Alimov, A. G.

TITLE: The Use of Preliminary Processed Cast Iron in Open-Hearth Smelting

PERIODICAL: Stal', 1960, Nr 1, pp 32-35 (USSR)

ABSTRACT: This is a report concerning ladle treatment of liquid cast iron blowing steam-oxygen mixture. The experiments were conducted at the "Azovstal'" Plant in 1957, on a semi-industrial installation in the mixing building. Only one ladle could be blown at a time. Later on, from June to August of 1958, fourteen experimental melts were made. B. S. Kurapin, V. I. Khmirov, N. T. Borilov, A. M. Kercher, and A. I. Pachenko participated in the work. For each test melt, 4 ladles (each holding approximately 60 tons of cast iron) were blown. The beginning of blowing took place 1 to 2 hours before the beginning of the test melt. 1.5% of ore and 1.0% of lime were added to each ladle. The degree of filling the ladle

Card 1/3

follows: Pressure (as gage) for oxygen, 3.5; for steam, 3.5. Hourly consumption: oxygen, 265 m³/hr; steam, 195 kg/hr. Specific consumption: oxygen, 2.6 m³/ton; steam, 1.7 kg/ton. An increase of steam superheating (up to 300-4000 C) instead of 160-1800 C) will increase the degree of filling of the ladle by elimination of the splash-out. The open-hearth melts were conducted in 340-ton furnaces using the blown cast iron. The authors arrived at the following conclusions. (1) The experiments showed that during the preliminary blowing of conversion cast iron by the steam-oxygen mixture, silicon, manganese, and sulphur were burned out to the extent of 54%, 37%, and 13.7% respectively. (2) The average increase of temperature of cast iron during blowing equals 300 C. (3) As a result of the decreased consumption of ore and limestone (in the charge), while smelting the blown cast iron, and due to the increase of cast iron temperature, the duration of melts decreased by 45 minutes for rimmed

Card 2/3

steel and by 1 hour 11 minutes for rail steel. The specific fuel consumption decreased and the productivity of the furnace increased on the average by 5%. In connection with good experimental results obtained at the "Azovstal'" Plant, it is planned to build an industrial installation for ladle treatment of cast iron. The editors comment that, due to the small number of test melts (only 5000 tons of steel were smelted) the above conclusions should be regarded as only preliminary. There are 2 figures.

ASSOCIATION: Ukrainian Scientific Research Institute of Metals and the "Azovstal'" Plant (Ukrayinskiy n.d. instytut metaliov i zavod "Azovstal'")

Card 3/3

YEFIMOV, L.M.; YAKUSHIN, V.I.; Prinimali uchastiye: BUL'SKIY, M.T., inzh.; ALIMOV, A.G., inzh.; SKREBTSOV, A.M., inzh.

Arsenic distribution in rimmed steel ingots. Izv.vys.ucheb.zav.; chern.met. 4 no.5:68-74 '61. (MIRA 14:6)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.

(Steel ingots) (Arsenic)

KOZHEVNIKOV, I.Yu., kand.tekhn.nauk; ALIMOV, A.G., inzh.; TIKHOMIROVA, K.A., inzh.

Temperature conditions of the molten metal in the conversion of phosophorous cast iron. Stal' 21 no.3:228-230 Mr '61. (MIRA 14:6)

1. Institut metallurgii AN SSSR, zavod "Azovstal'".
(Open-hearth process) (Thermocouples)

LEPORSKIY, V.V., inzh.; PETROV, S.S., inzh.; BUL'SKIY, M.T., inzh. [deceased]; ALIMOV, A.G., inzh.; BELOGOLOVSKIY, M.Sh., inzh.; TARASOVA, L.P., inzh.; KALASHNIKOV, A.G., inzh.

Production of medium-carbon, capped steel. Stal' 23 no.8:696-699 Ag '63. (MIRA 16:9)

1. Metallurgicheskiy zavod "Azovstal'."
(Steel--Metallurgy)

ALIMOV, A.G., inzh.; TIKHOMIROVA, K.A., inzh.; BERILOV, N.T., inzh.; PEREKRESTOV, V.I., inzh.; KRIVENKO, P.T., inzh.

Using a steam and oxygen mixture for accelerating the open-hearth smelting process. Stal' 24 no.10:895-896 O '64. (MIRA 17:12)

1. Zavod "Azovstal'".

ALIMOV, A.G., inzh.; KARPENKO, L.G., inzh.; TARASOVA, L.P., inzh.; TIKHOMIROVA, K.A., inzh.; BERILOV, N.T., inzh.; YUDIN, V.F., inzh.; SOBINOVA, L.I., inzh.; TRUSKO, A.A., inzh.

Rapid bottom pouring of killed steel. Stal' 25 no.3: 230-231 Mr '65. (MIRA 18:4)

20712
S/120/61/000/001/054/062
E032/E114

26,2252

AUTHORS: Umarov, G.Ya., Alimov, A.K., and Ovechkin, N.F.

TITLE: A Fast Electrodynamic Pulsed Vacuum Valve

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No.1, pp.178-179

TEXT: The valve is shown in Fig.1. The vacuum region B is separated from the high pressure region A by the elastic steel plate 6 and the polyethylene gasket 7. The valve is hermetically sealed by means of the central screw C. The vacuum cylinder B carries a 5-turn coil 4 made of copper strip 10 x 2 mm^2. An ИМЗ-100 (IMZ-100) capacitor charged to 2 kV is discharged through this coil. The steel plate 6 carries a copper ring 12 made from 0.2 mm thick foil. The current induced in the steel plate and the copper ring interacts with the current in the coil 4 and opens the valve. The amount of gas admitted to the vacuum chamber can be adjusted to lie between 10^{16} and 10^{19} molecules. The minimum time during which the valve was in the open state was found to be 6 μsec. Acknowledgements are made to V.V. Zhukov and A.M. Andrianov for discussions and valuable advice.
There are 3 figures and 1 Soviet reference.
Card 1/2

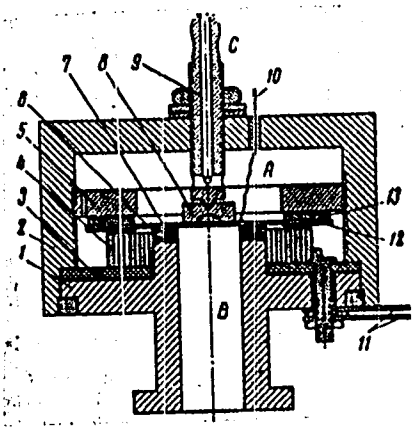
S/120/61/000/001/054/062
E032/E114

A Fast Electrodynamic Pulsed .....

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UzSSR
(Physico-technical Institute, AS Uz.SSR)

SUBMITTED: December 26, 1959

Fig. 1



Card 2/2

ALIMOV, A.K.

S/166/63/000/001/003/010
B104/B186

AUTHORS: Umarov, G. Ya., Alimov, A. K., Ovechkin, N. F.

TITLE: Investigation of a quickly acting electrodynamic pulsed vacuum valve

PERIODICAL: Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 1, 1963, 34 - 38

TEXT: An electrodynamic pulsed valve with elastically deformed membrane suited for plasma injectors is described. The main part of this valve is a steel membrane shown in Fig. 1. The discharge current of a condenser passes through the copper coil and interacts with the induction current in the copper ring soldered to the steel membrane. A study of the membrane motion shows that to ensure a rigid construction the membrane has to be screwed on both sides with thick washers; this makes it possible to increase the diameter of the central clamp bolt up to 100 mm, through which the high-voltage lead-in of the electrodynamic gun is taken. The membrane thickness is 2.4 mm and the coil consists of 3 copper bar windings with a thickness of 8 mm. With an increase of the peripheral clamping pressure the minimum opening voltage increases and the time of the opened valve

Card 1/2

Investigation of a quickly ...

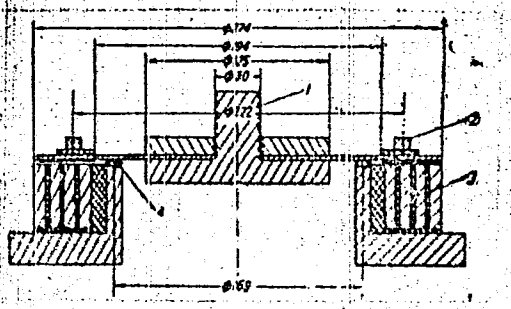
state decreases at equal voltages and diameter of inner clamp bolt. The time of the open valve state can be adjusted in the range between 20 and 250 μ sec. There are 4 figures.

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

SUBMITTED: June 28, 1962

Fig. 1. Membrane with coil. Legend: (1) Clamp bolt; (2) peripheral rubber hold-down; (3) pulse coil; (4) teflon sealing.

Fig. 1



Card 2/2

L 44686-66 EWT(d)/EWT(l)/EWT(m)/EWP(k)/EWP(h)/T-2/EWP(v)/EWP(t)/ETI/EWP(l)

ACC NR: AP6005375 (N) SOURCE CODE: UR/0413/66/000/001/0120/0120

WW/JD

AUTHORS: Umarov, G. Ya.; Alimov, A. K.; Ovechkin, N. F.

60 B

ORG: none

TITLE: Rapid-action electrodynamic membrane valve. 23 Class 47, No. 177720

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 120

TOPIC TAGS: valve, vacuum technology, gas flow

ABSTRACT: This Author Certificate presents a rapid-action electrodynamic membrane valve (after Author Certificate No. 128243) for delivering a small dose of gas into a high-vacuum chamber. The valve is provided with a closing mechanism consisting of a metallic membrane mounted above a spiral. To open the valve for a short interval of time, electric current from a discharging condenser is passed along the spiral. To be mounted on a long vacuum chamber for radial injection of gas into a cylinder, the valve carries a perforated plate membrane. The latter is held at the edges with pressing and adjusting bars and is fixed in the central part by elastic stiffener rings (see Fig. 1). These rings are located at the outlet of the vacuum duct. This outlet has lateral openings through which gas may pass into the cylinder. The outlet nipple passes through the central openings in the membrane and in the base of the casing to which it is attached.

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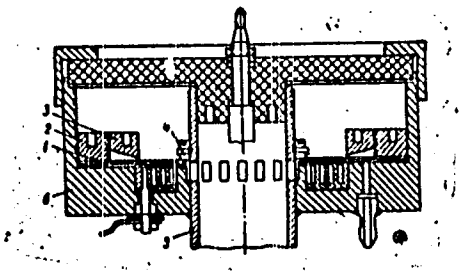
ACC NR: AP6005375

Fig. 1. 1 - plate membrane; 2 - holding ring; 3 - adjusting ring; 4 - elastic ring; 5 - outlet of vacuum duct; 6 - casing



Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 23Dec63

hs

Card 2/2

ACC NR: AP6031015 (A) SOURCE CODE: UR/0167/66/000/004/0063/0065

AUTHOR: Umarov, G. Ya.; Alimov, A. K.

ORG: Physico-Technical Institute, AN UzSSR (Fiziko-tekhnicheskiy institut AN UzSSR)

TITLE: A rapid-acting electrodynamic pulsed valve for peripheral admission of gas to a vacuum chamber

SOURCE: AN UzSSR. Izvestiya. Seriya tekhnicheskikh nauk, no. 4, 1966, 63-65

TOPIC TAGS: valve, vacuum chamber, electrodynamics, pulsed magnetic field

ABSTRACT: By contrast with the conventional types of plate valves, this new electrodynamic pulsed valve is equipped with a spring-loaded center-hole plate in an elastically deformed state which assures its airtightness. The operation of this valve is based on the electrodynamic interaction between currents from the metal-disk plate of the valve and a pulsed coil located beneath this plate, through which the capacitor discharge current is passed; this interaction causes the plate to rise and radially admit gas into the system. The principal work part is the center-hole steel plate 7 (Fig. 1). The central part of this plate may rise while its rim is held in a fixed position by clamping ring 6. As a result, when the valve is open, gas enters

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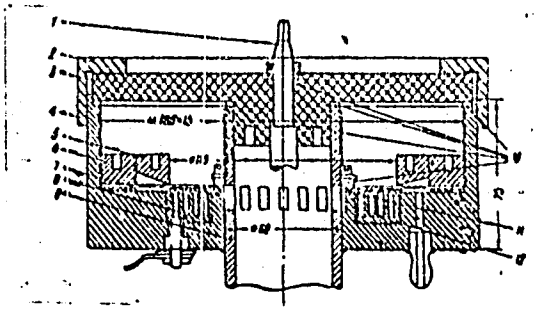

Fig. 1.

the system via a row of radial orifices in the cylindrical chamber 9. Control ring 5 causes the plate to be elastically deformed. Base 4 of the valve is airtightly welded to the vacuum cylinder. Packing 11 below the valve plate consists of teflon. In its central part the packing of the plate is represented by rubber ring 10. The plate is made of 65-G steel, copper-plated on both sides in order to increase the induction current arising in the plate when a pulsed magnetic field is generated in its neighborhood. Mounted underneath the plate is coil 8. The upper part of the valve is closed by means of organic-glass lid 3 with clamping nut 2. Mounted on this lid is the high-voltage electrode 1 of an electrodynamic coaxial gun. A connecting pipe for the supply of gas is welded to the valve housing. The valve control circuit can regulate the amount

ACC NR: AP6031015

of energy supplied to the valve coil and to determine, with the aid of a mechanical counter, its triggering frequency. This particular valve is specially designed for installation in a long vacuum line with the object of radial injection of gas into the cylinder, as well as for utilization in coaxial plasma injectors. The duration of its open state can be smoothly regulated for from 10 to 150 μsec, and the admission of gas during that interval of time can be regulated at from $5 \cdot 10^{15}$ to $9 \cdot 10^{18}$ particles per pulse. Orig. art. has: 3 figures.

SUB CODE: 13, 20/ SUBM DATE: 12May64/ ORIG REF: 006/ OTH REF: 005

Card 3/3

L 21308-66 EWT(1)/T LJP(c) AT

ACC NR: AP6006193 SOURCE CODE: UR/0377/65/000/004/0023/0026

AUTHORS: Umarov, G. Ya. (Candidate of physico-mathematical sciences); Alavutdinov, D.; Allmov, A. K. 48 B

ORG: Physico-technical Institute, AN UzSSR (Fiziko-tekhnicheskiy institut AN UzSSR)

TITLE: On the possibility of making a long focal-length evacuated film concentrator 21,44,55

SOURCE: Geliotekhnika, no. 4, 1965, 23-26

TOPIC TAGS: solar radiation, solar furnace, optics

ABSTRACT: The possibility of constructing a long focal-length film concentrator in an evacuated chamber is investigated. It is assumed that the surface of the concentrator is almost spherical (see Fig. 1) and that the maximum film curvature is calculated to be

$$h = \frac{D^2}{16f}$$

For various focal lengths and concentrator diameter, the magnitudes of h are

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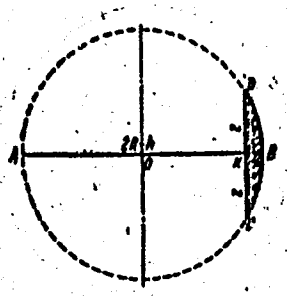
L 21308-66

ACC NR: AP6006193

Fig. 1.



calculated and tabulated. It is found that the diameter of the focal point is close to the diameter of the solar image as a direct result of the fact that the concentrator has an optically exact surface. Also tabulated are the focal lengths versus the corresponding focal point temperatures, and also the focal length and the film tension. This latter can be controlled by means of an adjustable spring. It is shown that one can construct a long focal-length concentrator with $1.5 \leq f \leq 10$ m such that the temperature at the focal point can be made to vary between 1200 to 3000. Orig. art. has: 3 figures, 3 tables, and 2 formulas.

SUB CODE: 03, 13, 20 SUBM DATE: 01Jun65/ ORIG REF: 001/ OTH REF: 001

Card 2/2

ALIMOV, A.K.

Using shell-rock filters in drill holes for experimental pumping. Za tekh. prog. 3 no.7:36-37 Jl '63. (MIRA 16:12)

1. Azerbaydzhanskiy nauchno-issledovatel'skiy institut gidrotekhniki i melioratsii (AzNIIG1M).

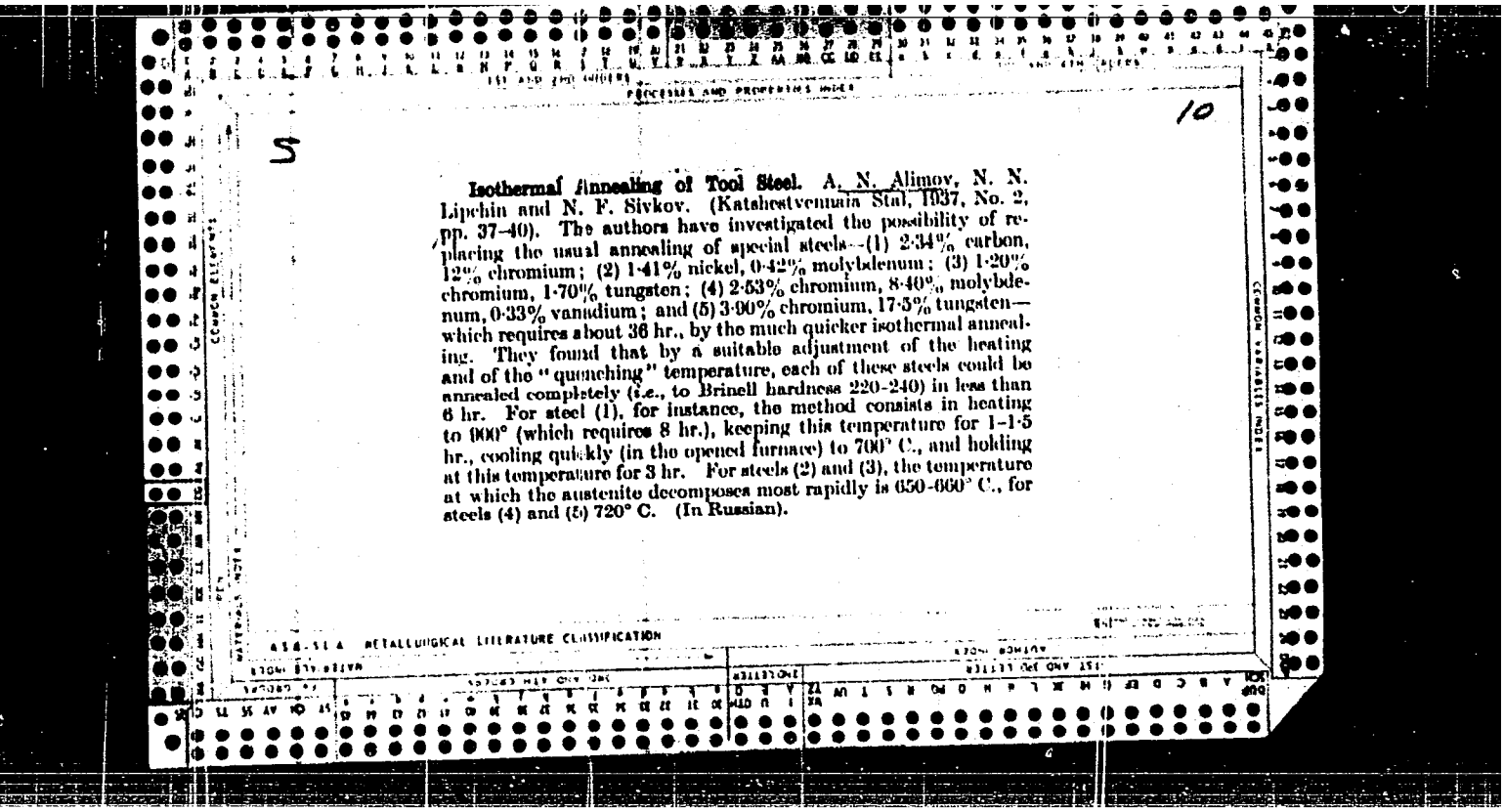
UMAROV, G.Ya.; FAYZULLAYEV, D.F.; NAZARIY, M.P.; ALIMOV, A.K.

Shape of the surfaces of paraboloid mirrors made by the rotation technique. Geliotekhnika no.6:12-18 '65.
(MIRA 19:1)

1. Fiziko-tekhnicheskiy institut AN UzSSR.

ALIMOV, A.N., dotsent, kand.tekhn.nauk

Factors determining the durability of ingot molds. Trudy NTO Chern.met. 15:11-19 '59. (MIRA 13:7)
(Ingot molds)



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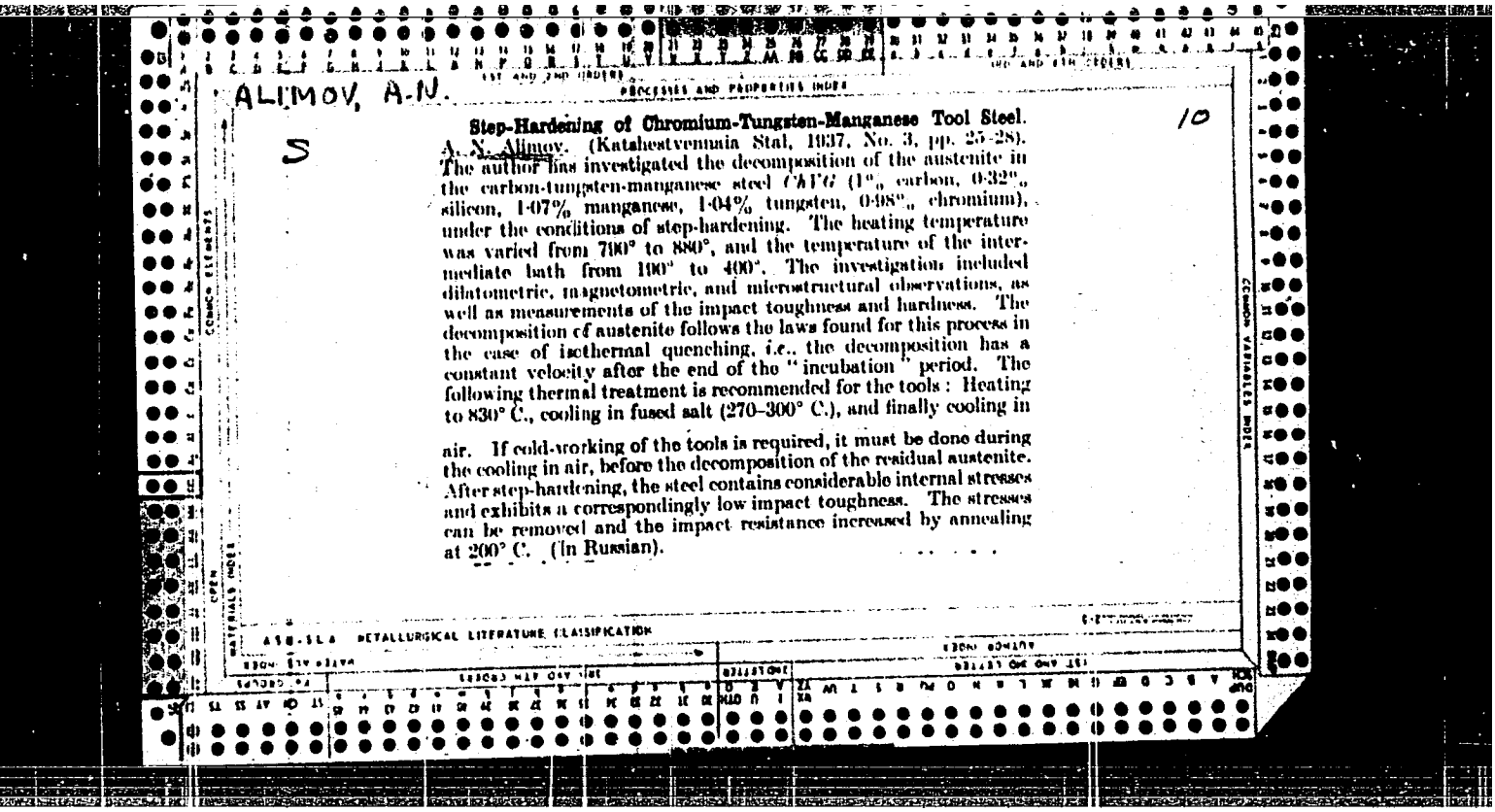
10

Isothermal Annealing of Tool Steel. A. N. Alimov, N. N. Lipchin and N. F. Sivkov. (Katshestvennaia Stal, 1937, No. 2, pp. 37–40). The authors have investigated the possibility of replacing the usual annealing of special steels—(1) 2·34% carbon, 12% chromium; (2) 1·41% nickel, 0·42% molybdenum; (3) 1·20% chromium, 1·70% tungsten; (4) 2·53% chromium, 8·40% molybdenum, 0·33% vanadium; and (5) 3·90% chromium, 17·5% tungsten—which requires about 36 hr., by the much quicker isothermal annealing. They found that by a suitable adjustment of the heating and of the "quenching" temperature, each of these steels could be annealed completely (*i.e.*, to Brinell hardness 220–240) in less than 6 hr. For steel (1), for instance, the method consists in heating to 900° (which requires 8 hr.), keeping this temperature for 1–1·5 hr., cooling quickly (in the opened furnace) to 700° C., and holding at this temperature for 3 hr. For steels (2) and (3), the temperature at which the austenite decomposes most rapidly is 650–660° C., for steels (4) and (5) 720° C. (In Russian).



ALIMOV, A.N.

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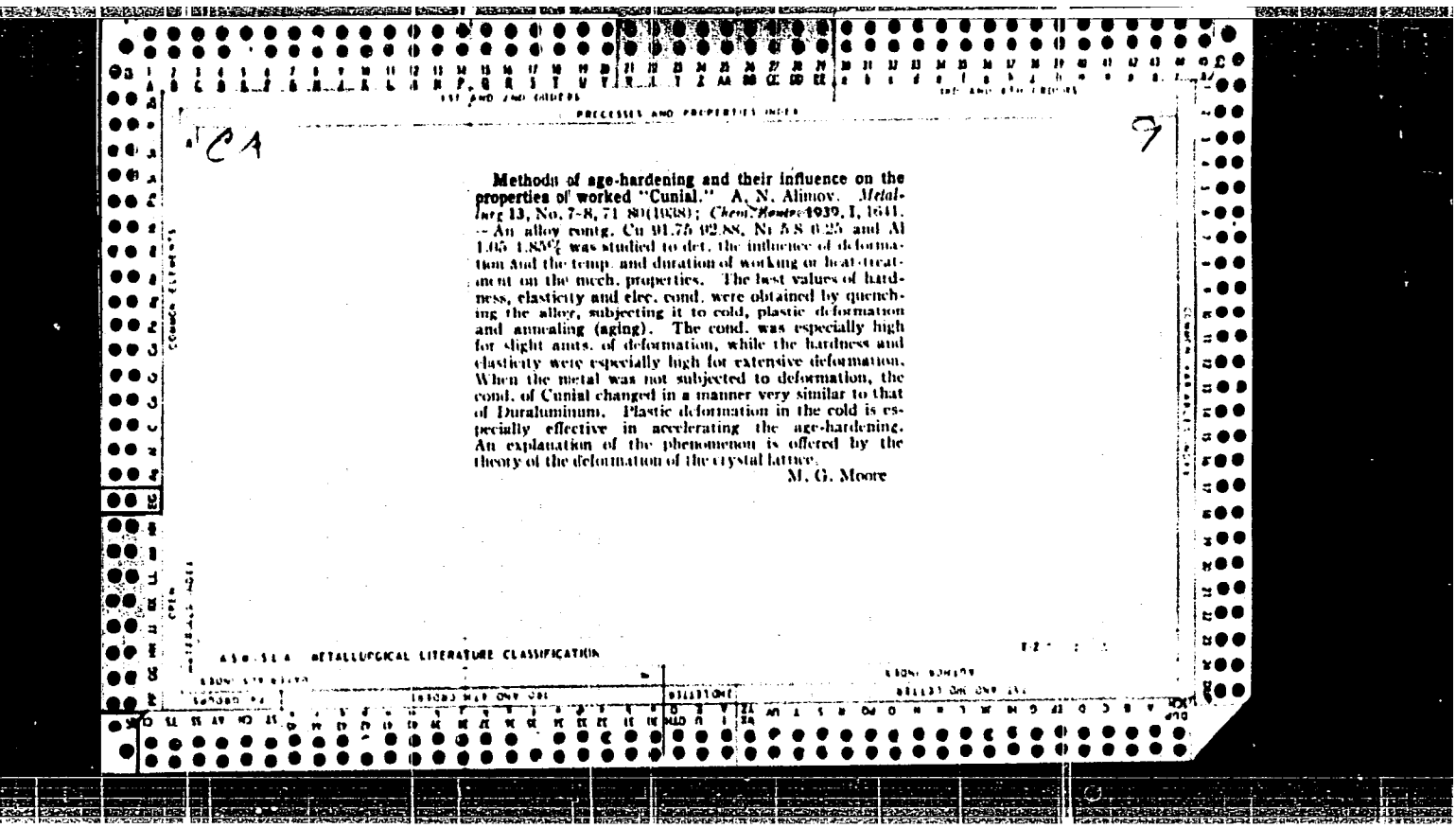
Step-Hardening of Chromium-Tungsten-Manganese Tool Steel. A. N. Alimov. (Katahestvennaia Stal, 1937, No. 3, pp. 25–28). The author has investigated the decomposition of the austenite in the carbon-tungsten-manganese steel *CATG* (1% carbon, 0·32% silicon, 1·07% manganese, 1·04% tungsten, 0·98% chromium), under the conditions of step-hardening. The heating temperature was varied from 760° to 880°, and the temperature of the intermediate bath from 100° to 400°. The investigation included dilatometric, magnetometric, and microstructural observations, as well as measurements of the impact toughness and hardness. The decomposition of austenite follows the laws found for this process in the case of isothermal quenching, i.e., the decomposition has a constant velocity after the end of the "incubation" period. The following thermal treatment is recommended for the tools: Heating to 830° C., cooling in fused salt (270–300° C.), and finally cooling in air. If cold-working of the tools is required, it must be done during the cooling in air, before the decomposition of the residual austenite. After step-hardening, the steel contains considerable internal stresses and exhibits a correspondingly low impact toughness. The stresses can be removed and the impact resistance increased by annealing at 200° C. (In Russian).

ALIMOV, A. N.

ALIMOV, A.N, and LINCHIN, N.N. C.A. 32 3742-9

"Selection of steel and thermal treatment for small dies in hot stamping." Vestnik Metalloprom. (U.S.S.R.) 17, No. 10, 83-92 (1937).—

An investigation of various steels for small dies showed that ЭХВ8 C 0.30, Cr 2.50, W 8.01 and V 0.3 is most suitable on account of its high heat resistance and elasticity. Optimum hardness required in a given die is dtd. not by the chem. compn. of the stamp but by nature of the metal stamped. Instructions for heat-treatment of dies are given.



Methods of age-hardening and their influence on the properties of worked "Cunial." A. N. Alimov. *Metallurg* 13, No. 7-8, 71-80(1938); *Chem. Zentr.* 1939, I, 1641. -- An alloy contg. Cu 91.75-92.88, Ni 5.8-6.25 and Al 1.05-1.85% was studied to det. the influence of deformation and the temp. and duration of working or heat-treatment on the mech. properties. The best values of hardness, elasticity and elec. cond. were obtained by quenching the alloy, subjecting it to cold, plastic deformation and annealing (aging). The cond. was especially high for slight amts. of deformation, while the hardness and elasticity were especially high for extensive deformation. When the metal was not subjected to deformation, the cond. of Cunial changed in a manner very similar to that of Duraluminum. Plastic deformation in the cold is especially effective in accelerating the age-hardening. An explanation of the phenomenon is offered by the theory of the deformation of the crystal lattice.

M. G. Moore

M. A.

2. Properties of Alloys

*On Some Properties of Bronze AN-5-5 [90 : 5 : 5 Copper-Nickel-Aluminium]. A. N. Alimov (*Metallurg* (*Metallurgist*), 1939, (12), 65–68).—[In Russian.] The mechanical properties of the alloy were determined in the hot-worked state and correlated with the macro- and micro-structures. The fatigue limit ($1{\cdot}5 \times 10^7$ cycles) was found to be 16–17 kg. mm.^{2} for fine-grained material and 13–14 kg./mm.^{2} for coarse-grained.—N. B. V.

1943