"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

L 19758-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG/ MLK

ACCESSION NR: AT4048345 S/0000/64/000/000/0167/0171 B

AUTHOR: Kaplunovskiy, G. A.; Kukkonen, E. Ya.; Demidova, A. A.; Magnitskiy, O. N.; Gulyayev, B. B. (Doctor of technical sciences, Professor)

TITLE: The effect of a gaseous medium during melting and teeming on the quality of cast chromium

18

SOURCE: AN SSSR. Komissiya po tekhnologii mashinostroyeniya. Gazy" v litom metalle (Gases in cast Metals). Moscow, Izd-vo Nauka, 1964, 167-171

TOPIC TAGS: cast chromium, gas saturation, chromium melting, chromium teeming, chromium brittleness, oxygen adsorption, hydrogen adsorption, nitrogen adsorption, rare earth admixture

ABSTRACT: After noting that the principle cause of chromium brittleness is gaseous impurities, the authors report the results of studies aimed at selecting the optimal technological conditions for the smelting of chromium, from the point of view of ensuring a minimum gas content in the cast metal. The metal was smelted in an OKB-498m high-vacuum induction furnace in a rammed crucible of zirconium dioxide. As the basic material, unrefined chromium was employed with the following composition: 0.024-0.030% H_2, 0.3% O_2,

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L 19758-65
ACCESSION NR: AT4048345

0.002-0.050% N_2. The experimental melts were made in an inert argon atmosphere, since due to the high chromium vapor pressure at the melting temperature (63.5 mm Hg), it is not possible to melt the metal in a vacuum. For the purpose of decomposing the nitrides and removing the adsorbed gases, the chromium was aged at 750, 1200 and 1400C for 30 minutes at each temperature, and also in the melted state. The chromium was poured into a metal mold in order to exclude any effect of the mold material on the gas content in the castings. Further details regarding the technique of the experiment are given in the paper. Conditions which ensure the absence of coronal discharge in the vacuum at high voltages were also determined during the development of specific smelting conditions. The process of melting 5 kg of chromium lasted up to 5 minutes. A table is given showing the content of oxygen and nitrogen in the cast chromium as a function of temperature and duration of exposure. Oxygen content was found to increase somewhat, in comparison with the base content, together with the time of aging. The nitrogen content decreased with aging for 30 minutes at 750-1200C. Experiments showed that the optimal aging regime for chromium is 1200C and 30 minutes. In the cast metal the hydrogen content stood at 0.0004-0.0009%. It was also found that, all other conditions being equal, the content of non-metallic admixtures of the oxide type is approximately half as high (0.301%) after the fourth melting as after the first (0.66%). For the purpose of studying the effect of the material of the mold on the gas-saturation of the chromium, samples were poured into

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

L 19758-65
ACCESSION NR: AT4048345

molds of different refractory materials, and a table is given in the article illustrating the dependence of the oxygen content in the castings on the mold material used. The authors indicate that the microhardness of the chromium is not changed by the mold material. The use of rare-earth elements to enhance the mechanical properties of cast chromium is discussed in some detail. Data are presented which indicate that the content of non-metallic inclusions in cast chromium without admixtures reaches 0.661%, while an analysis of the non-metallic inclusions showed the presence of oxides of the Cr_2O_3 type and oxides of the rare-earth elements. In this way, the rare-earth elements are found to have a refining effect. The article concludes with a brief discussion of a special study which was made to determine the optimal argon pressure for high-quality stock. The authors show that the structure of chromium, smelted and teemed at an argon pressure of 600 mm Hg, is finer than that of chromium poured at 200, 60-90, and 1.2 mm. According to some writers, a fine-grain structure reduces the temperature threshold of chromium brittleness. Orig. art. has: 3 figures and 3 tables.

ASSOCIATION: None

SUBMITTED: 20May64 ENCL: 00 SUB CODE: MM

NO REF SOV: 002 OTHER: 000

Card 3/3

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

L 24523-65 EWT(m)/EPF(n)-2/EWP(t)/EWP(b) Pu-4 IJP(c)/AS(mp)-2/AFWL/SSD/AFETR/ASD(f)-2/ASD(m)-3 JD/JG

ACCESSION NR AM4040600 BOOK EXPLOITATION S/

Gulyayev, B. B.; Magnitskiy, O. N.; Demidova, A. A.

Refractory metal casting (Lit'ye iz tugoplavkikh metallov), Moscow, Izd-vo "Mashinostroyeniye", 1964, 291 p. illus., biblio. 2,800 copies printed.

TOPIC TAGS: metallurgy, refractory metal casting, chromium, titanium, molybdenum, niobium, refractory metal

PURPOSE AND COVERAGE: This book covers Soviet and foreign experience and results of research in the casting of refractory metals. Casting from chromium, titanium, molybdenum, niobium and other refractory metals is examined. The basic sections of the book deal with melting and pouring, interaction of metals with gases, refractory and molding materials, design of vacuum equipment, development of casting processes, cast mechanical and service properties of cast refractory metals. The book is intended for engineers and technicians in industry and research organizations. It can also be useful to students in casting specialties.

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L 24523-65
ACCESSION NR AM4040600

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Ch. II. Interaction of refractory metals with the surrounding medium at high temperatures -- 31
Ch. III. Equipment for melting and pouring refractory metals -- 100
Ch. IV. Technology of preparing castings from refractory metals -- 165
Ch. V. Properties of castings based on refractory metals -- 249

SUBMITTED: 14Feb64 NR REF SOV: 103

SUB CODE: MM

OTHER: 096

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APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

L 33964-65 EWT(m)/EPF(c)/EPF(n)-2/EWA(d)/EPR/T/EWP(t)/EWP(b) Pr-4/Pad/Ps-4/
Pu-4 IJP(c) MJW/JD/HW/JG

ACCESSION NR: AP5005849 S/0148/65/000/002/0142/0147 44 43 B

AUTHOR: Gulyayev, B.B.; Kuzin, A.V.; Kaplun, R.I.

TITLE: Decreasing the number of scabs and nonmetallic inclusions in Kh18N9TL steel castings

SOURCE: IVUZ. Chernaya metallurgiya, no. 2, 1965, 142-147

TOPIC TAGS: casting defect, casting scab, casting inclusion, nonmetallic inclusion, steel casting/Kh18N9TL

ABSTRACT: When making castings of Kh18N9TL steel, considerable quantities of scabs and nonmetallic inclusions are often formed. The present authors studied ways of avoiding these casting flaws. The temperature of casting, holding time of the metal during oxidizing, and the presence of a neutral or reducing environment and their influence on changes in the chemical composition and quantity of oxides in the melt were investigated. Melting in an oxidizing atmosphere increased the quantity of scale. In order of decreasing oxidation intensity the elements of this alloy form the following series: Ti, Si, Mn, Cr, Ni (Ni does not oxidize). In a neutral atmosphere and after long holding, only Ti oxidizes. In an atmosphere of H_2 or Ar no oxidation is observed at all. At 1650C no oxides are formed on the surface at any holding time. The most intensive oxidation takes place at

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

L 33964-65

ACCESSION NR: AP5005849

1500C. The conclusion is that casting should be done at 1600-1630C. Foundry practice showed that casting rejects could be cut to one third of normal by following this rule. Orig. art. has: 5 figures and 2 tables.

ASSOCIATION: Severo-zapadny*y zaochny*y politekhnicheskiy institut (The Nortwestern Polytechnical Institute by Correspondence)

SUBMITTED: 01Jul64/--Feb65 ENCL: 00 SUB CODE: MM

NO REF SOV: 000 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

L 62805-65 EWT(m)/EWP(w)/EPF(c)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) MJW/JD/WB

ACCESSION NR: AP5018145 UR/0128/65/000/007/0001/0003

621.746.757:669.14.018.8

AUTHOR: Gulyayev, B. B. (Doctor of technical sciences); Kunin, A. V. (Engineer); Galkin, M. F. (Candidate of technical sciences); Chivikin, Ya. Ya. (Engineer)

TITLE: Defects in high-alloy steel castings and their prevention

SOURCE: Liteynoye proizvodstvo, no. 7, 1965, 1-3

TOPIC TAGS: high alloy steel, casting defect, steel casting, chromium steel

ABSTRACT: The development of chemical machine building has necessitated extensive casting of complex alloy steels containing 18-20% of Cr, about 0.10% C, Ni, Mn, Ti, and other admixtures. These steels are hard to handle and the intensive interactions of Cr, Ti, and Mn with atmospheric oxygen and nitrogen during smelting and casting result in specific casting defects - blisters and subskin porousness. Even minute variations in the content of the basic components affect the mechanical and other (corrosion resistance, magnetic permeability) properties. The paper describes a detailed study of the nature of these defects in Kh18N9TL, Kh20N5G12AFL and Kh25N5TMFL steels, and offers detailed recommendations for and description of casting procedures which prevent the appearance of

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APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

L 62805-65

ACCESSION NR: AP5018145

the above-mentioned defects. Orig. art. has: 2 formulas, 10 figures, and 2 tables.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: IM

NO REF SOV: 005 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.B.; KUZIN, A.V.; KAPLUN, I.I.

Decreasing the number of scabs and nonmetallic inclusions in KH18N9TL steel castings. Izv. vys. ucheb. zav.; chern. met. 8 no.2:142-147 '65. (MIRA 18:2)

1. Severo-zapadnyy zaochnyy politekhnicheskiy institut.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

OGORODOV, L.A.; KRIVITSKIY, V.S.; GULYAYEV, B.B.

Adhesion properties of silicate bonded sands and their elimination. Lit. proizv. no.11:28-31 N '64. (MIRA 18:8)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.B.

Chemistry of titanium-base solid solutions. Dokl. AN SSSR 164 no.3:574-576 S '65. (MIRA 18:9)

1. Submitted April 13, 1965.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.B. (Leningrad); SOLNTSEV, Yu.P. (Leningrad)

Steel crystallization and the structure of an ingot. Izv. AN SSSR. Met. no.5:27-40 S-O '65. (MIRA 18:10)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.B., dokto' tekhn.nauk; KUZIN, A.V., inzh.; GALKIN, M.F., kand.tekhn. nauk; CHIVIKSIN, Ya.Ye., inzh.

Defects in high-alloy steel castings and their prevention. Lit. proizv. no.7:1-3 Jl '65. (MIRA 18:8)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

YEVSTAF'YEV, I.N., insh.; BOROVSKIY, Yu.F., kand. tekhn. nauk; FOMCHENKO, S.I., kand. tekhn. nauk; GULYAYEV, B.B., doktor tekhn. nauk

Compacting molding mixtures by vibration squeezing. Lit. proizv. no.9:4-6 S '65. (MIRA 18:10)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.B.

Chemistry of aluminum-base solid solutions. Dokl. AN SSSR 164 no.1:103-105 S '65. (MIRA 18:9)

1. Severo-Zapadnyy zaochnyy politekhnicheskiy institut. Submitted June 3, 1965.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

KACHAN, A.D., inzh.; GULYAYEV, B.B., doktor tekhn. nauk; GEL'MAN [illegible] kand. tekhn. nauk

Semicontinuous method of cast iron pipe casting. Lit. proizv. no.11:8-10 N '65. (MIRA 18:12)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

KONDRAT'YEV, Yuriy Petrovich, inzh.; GULYAYEV, B.B., doktor tekhn. nauk, red.

[Dimensional accuracy of plastic pattern equipment] Tochnost' razmerov model'noi osnastki iz plastmass. Leningrad, 1965. 23 p. (MIRA 18:11)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

ACC NR: AP6035883 SOURCE CODE: UR/0413/66/000/020/0124/0124

INVENTOR: Shapranov, I. A.; Gulyayev, B. B.; Stepanov, S. A.

ORG: none

TITLE: Steel. Class 40, No. 187313

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 124

TOPIC TAGS: low alloy steel, structural steel, WELDABILITY

ABSTRACT: This Author Certificate introduces a steel with improved weldability and mechanical properties containing 0.12—0.18% carbon, 0.2—0.4% silicon, 1.0—1.4% manganese, 1.2—1.6% chromium, 0.1—0.2% vanadium, 0.2—0.4% tungsten, 0.4—0.6% molybdenum, 0.02—0.03% selenium, 0.15—0.20% cerium, and 0.003—0.005% boron.

SUB CODE: 11/ SUBM DATE: 16Dec64/

Card 1/1 UDC: 669.15-194.2:669.018.28:669.14.018.62

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

L 32600-66 EWT(m)/T/EWP(t) IJP(c) DS/JD

ACC NR: AP5024217 SOURCE CODE: UR/0020/65/164/003/0574/0576

AUTHOR: Gulyayev, B. B.

ORG: None

TITLE: The chemistry of solid solutions in titanium base

SOURCE: AN SSSR. Doklady, v. 164, no. 3, 1965, 574-576

TOPIC TAGS: solid solution, titanium base alloy, binary alloy

ABSTRACT: The parameters of binary systems of solid solutions of titanium with various elements have been investigated and some generalizations have been made. Parts of binary structural diagrams of titanium which correspond to the primary solid solutions and to their eutectics and peritectics are shown. The solubility of various elements at the eutectic temperature in α-and β-titanium are also given. Relations are presented for the concentrations of eutectics or peritectics formed by solid solutions of both titanium modifications with the corresponding elements and chemical compounds closest to titanium. The concentrations of boundary eutectic and peritectic solutions form regular curves

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

L 32600-66

ACC NR: AP5024217

with both titanium modifications which change in conformity with the periodic system of elements. The characteristics of α-titanium are lower than the corresponding characteristics of β-titanium. The established system permits the correlation of data corresponding to various modifications of titanium and various other metals. Predictions were made regarding the characteristics of solid solutions of elements in titanium which have not yet been investigated. The paper was presented by Academician A. N. Frumkin, 13 Apr. 65. Orig. art. has: 4 figs.

SUB CODE: 11,07/ SUBM DATE: 19Dec64/ ORIG REF: 004

Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

PIVOVAROVA, Z.I.

3(7) PHASE I BOOK EXPLOITATION SOV/1719

Leningrad. Glavnaya geofizicheskaya observatoriya

Metodika meteorologicheskikh nablyudeniy (Methods of Meteorological Observation) Leningrad. Gidrometeoizdat, 1958. 55 p. (Series: Its: Trudy, vyp. 86) 1,200 copies printed.

Additional Sponsoring Agency: USSR. Glavnoye upravleniye gidrometeorologicheskoy sluzhby.

Ed. (Title page): Z.I. Pivovarova, Candidate of Geographical Science; Ed. (Inside book): T.V. Ushakova; Tech. Ed.: N.V. Volkov

PURPOSE: This issue is intended for meteorologists and especially for personnel of the hydrometeorological service.

COVERAGE: This issue discusses the methodology of meteorological, actinometric and gradient measurements and the processing of such data. Subdivisions of meteorology covered in some detail include:

Card 1/3

snow density, daily variation of relative humidity, soil temperature measurements, estimation of quantitative cloud cover, wind velocity measurement, and others. Individual articles are accompanied by bibliographic references.

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Pokrovskaya, I.A. Effect of Temperature on Conversion Factors of Thermoelectrical Actinometers and Pyranometers 38

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AVAILABLE: Library of Congress

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APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B. I. and GOLIEVA, O. I.

"Methods of Observation of the Plant-Physiological Radiation," report presented at the Conference of Young Experts of the Main Geophysical Observatory im A. I. Voyeykov.
Meterologiya i Gidrologiya 1958, No. 2, pp. 61, (author Gayevskaya, G. N.)

Reported on the development of new actinometric apparatus and the perfection of the existing devices. A method for the detection of the radiation balance according to certain measured values of the summary radiation was suggested by L. N. D'yachenko,.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

Gulyayev, B. I.

3(7); 24(3) PHASE I BOOK EXPLOITATION SOV/2548

Leningrad. Glavnaya geofizicheskaya observatoriya

Issledovaniye radiatsionnykh protessov (Study of Radiation Processes) Leningrad, Gidrometeoizdat, 1959. 142 p. (Series: Its Trudy, vyp. 80) Errata slip inserted. 1,200 copies printed.

Sponsoring Agency: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR.

Ed. (Title page): V. L. Gayevskiy, Candidate of Geographical Sciences; Ed. (Inside book): V. D. Pisarevskaya; Tech. Ed.: A. N. Sergeyev.

PURPOSE: This book is intended for geophysicists and engineers studying radiation phenomena.

COVERAGE: This collection of articles treats problems in optics of the atmosphere and actinometry. Results of theoretical and experimental investigations of visibility range, transparency of the atmosphere, and the radiation regime of both the active surface and the atmosphere are shown. Individual articles deal with the methodology of actinometric observations. No personalities are mentioned. References accompany each article.

Ter - Markaryants, N. Ye. Computing the Albedo of Water Surfaces

Baraskova, Ye. P. Certain Regularities in the Regime of Total Radiation

Baraskova, Ye. P. Scattered Radiation in Karadag

Baraskova, Ye. P. Computing the Daily Sums of Total Radiation According to Standard Observations

Baraskova, Ye. P. Turbidity of the Atmosphere in Karadag

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AVAILABLE: Library of Congress

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APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

PHASE I BOOK EXPLOITATION SOV/4137
SOV/2-5-100

Leningrad. Glavnaya geofizicheskaya observatoriya

Issledovaniye radiatsionnykh protsessov (Investigation of Radiation Processes). Leningrad, Gidrometeoizdat, 1960. 197 p. (Series: Its: Trudy, vyp. 100) Errata slip inserted. 1,000 copies printed.

Additional Sponsoring Agency: USSR. Glavnoye upravleniye gidrometeorologicheskoy sluzhby.

Ed. (Title page): K.S. Shifrin, Doctor of Physics and Mathematics, and V.L. Gayevskiy, Candidate of Geography; Ed. (Inside book): L.P. Zhdanova; Tech. Ed.: N.I. Braynina.

PURPOSE: The publication is intended for meteorologists and students of hydrometeorology at higher technical schools.

COVERAGE: This issue of the Transactions of the Main Geophysical Observatory imeni A.I. Voyeykov contains 27 articles on investigations of the radiation processes occurring in the atmosphere and on the active surface. Individual articles on the following topics are included: light dispersion in a two-layered atmosphere, comparative analysis of sighting conditions under a cloudy and a cloudless sky, investigation of long-wave radiation of the atmosphere, electronic temperature controller, aircraft instruments for measuring the spectral optical characteristics of the atmosphere and the underlying surface, and the dependence of long-wave atmospheric radiation upon the meteorological elements. References accompany

Krasil'shchikov, L.B., and A.A. Tsarevskaya. Device for Measuring Reflection Indicatrices in the 0.6--2.5μ Spectrum Region 131

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APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.I.

Angular characteristics of apparatus with flat filters. Trudy GGO no.100:175-192 '60. (MIRA 13:6)
(Radiometer)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.I.

Compensating headpiece for radiometers with flat filters. Trudy GGO no.100:193-198 '60. (MIRA 13:6)
(Radiometer)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

POCHINOK, Kh. N., kand. khimicheskikh nauk; GULYAYEV, B. I., mladshiy nauchnyy sotrudnik

Efficiency of a green leaf. Nauka i zhizn' 29 no.9:21-23 S '62. (MIRA 15:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut fiziologii rasteniy, Kiyev (for Gulyayev).

(Photosynthesis)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

L 32584-66 EWT(1) SCTB DD

ACC NR: AR5024091 SOURCE CODE: UR/0299/65/000/016/G005/G005

AUTHOR: Gulyayev, B. I.; Pochinok, Kh. N.

8
B

TITLE: Application of the colorimetric method for uninterrupted measurements of photosynthesis and breathing intensity

SOURCE: Ref. zh. Biologiya, Abs. 16G26

REF SOURCE: Tr. 1-y Resp. nauchn. konferentsii fiziologov i biokhimikov rast. Moldavii, Kishinev, Kartya Moldovenyaske, 1964, 184-195

TOPIC TAGS: colorimetry, photometric analysis, photosynthesis, plant physiology

ABSTRACT: The author proposes a modification of the colorimetric method, based on a determination of differences between the spectral transparency of two bicarbonate solutions, with the pH of the first in a free balance with the CO_2 within the experimental chamber, and the pH of the second solution with that of the CO_2 of the air outside the chamber. A diagram and description of the experimental equipment and of the method used for its calibration are given. For building the equipment, the photocolorimeter FEK-57 was used, from which the measuring shutter was removed and the diaphragm filters replaced by interference filters with a maximum 550-555 mμ filtration. Selenium

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L 32584-66

ACC NR: AR5024091

cells were substituted by TsV-3 cessiumantimony cells. The feeding of the equipment was done from a 6 v battery and a 70 v anode battery. The measuring of corrections for the equipment zero was done every 30-60 minutes. A description is given of the mixer for air with the buffer, consisting of two communicating sections, where the air is sucked through the solution at a 0.3-1.0 per minute. Because of large discharges, the glass mixers distort the results and therefore are useless for this work. It is recommended to use a pH 7.4 bicarbonate solution and a 0.1% phenolred indicator. Ye. Yurina

SUB CODE: 06 SUBM DATE: none

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAEV, B. N.

High-speed metal cutting Moskva, Vses. kooperativnoe izd-vo, 1952. 69 p.
(53-32297)

TS460.G8

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

CHASHCHIN, A.M., glavnyy inzhener; GULYAYEV, B.N.

Extend the production of faolite spigots. Der.i lesokhim.prom. 2 no.9: 30-31 S '53. (MLRA 6:8)

1. Dmitriyevskiy lesokhimicheskiy zavod (for Chashchin). 2. TsNILKhI. (Faucets) (Metals, Substitutes for)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.N.

Pyrolysis of the Siberian larch. V. N. Kozlov and B. N. Gulyaev. *Trudy Inst. Khim. i Met., Akad. Nauk S.S.S.R., Ural. Filial* 1955, No. 2, 117-27; cf. Kharon, *et al.*, *C.A.* 4, 1803.--Pyrolysis of the Siberian larch gives the same amt. of decompn. products as that of evergreens, yielding per 480 kg. of air-dry wood contg. 20% H_2O, coal 120, volatile acids 14, alcohols 3, settled tar 29, and soi. tar and other org. compds. 37 kg.

Elisabeth Barabash

FU

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.N.

GULYAYEV, B.N., kandidat tekhnicheskikh nauk

Chemically stable packing materials for stopcocks and valves. Gidroliz. i lesokhim prom. 8 no.1:30-31 '55. (MLRA 8:10)
(Valves)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.N.; CHASHCHIN, A.M.

Substitution of nonferrous metals in rectification columns in the manufacture of acetic acid. Gidroliz. i lesokhim. prom. 8 no.3: 19-20 '55. (MIRA 8:9)

1. Nachal'nik laboratorii TSentral'nogo nauchno-issledovatel'skogo lesokhimicheskogo instituta (for Gulyayev). 2. Glavnyy inzhener Dmitriyevskogo lesokhimicheskogo zavoda (Chashchin)
(Acetic acid)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.N.

Lining of tanks for formaldehyde. Gidroliz. i lesokhim.prom. 9 no.1:29 '56. (MLRA 9:6)

1.Nauchnyy sotrudnik TSentral'nogo nauchno-issledovatel'skogo lesokhimicheskogo instituta.
(Formaldehyde) (Protective coatings)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.N., nauchnyy sotrudnik.

Heat-conducting anticorrosive materials for coating. Gidroliz.i lesokhim.prom. 9 no.3:26 '56. (MLRA 9:8)

1. TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(Corrosion and anticorrosives)

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GULYAYEV, B.N.

Varnishes and paints resistant to ethers. Gidroliz. i lesokhim. prom. 9 no.4:30 '56. (MLRA 9:11)

1. Nauchnyy sotrudnik TSentral'no nauchno-issledovatel'skogo lesokhimicheskogo instituta.
(Varnish and varnishing) (Paint)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

KATUNIN, V.Kh.; GULYAYEV, B.N.

Recovery of low-boiling products of wood pyrolysis in froth apparatus. Gidroliz.i lesokhim.prom. 10 no.4:8-10 '57. (MIRA 10:7)

1. TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(Wood distillation) (Absorption)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.N.; ZHDANOVA, A.V.

Use polysobutylene for the protection of equipment against corrosion. Gidroliz. i lesokhim. prom. 11 no.1:8-9 '58. (MIRA 11:2)

1.TSentral'nyy nauchno-issledovatel'skiy lesokhimicheskiy institut.
(Propene) (Corrosion and anticorrosives)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

[illegible], N. V.; [illegible]

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Late fall sowing of spring wheat. Sel. i sem. 12 No. 7, 1956.

Monthly List of Russian Accessions, Library of Congress, October 1956. UNCLASSIFIED.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.V., inzh.

Portable automatic methane detectors used in mines. Bezop. truda v prom. 2 no.12:23-24 D '58. (MIRA 11:12)

1.Donetskiy industrial'nyy institut.
(Methane) (Gas detectors)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAEV, B.V., inzh.

New automatic portable methane detectors (methane-relay). Nauch.dokl. vys.shkoly; gor.delo. no.4:99-104 '58. (MIRA 12:1)

1. Predstavleno kafedroy gornozavodskoy elektrotekhniki Donetskogo industrial'nogo instituta imeni N.S. Khrushcheva.
(Gas detectors)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.V., Cand Tech Sci -- (diss) "~~Elaboration~~ and ~~xtxty~~ ~~checking~~ of portable ~~mining~~ methane detectors."

Stalino, 1959, 25 pp with illustrations (Min of Higher Education UkSSR. Donets Order of Labor Red Banner Industrial Inst) 150 copies (KL, 26-59, 120)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, B.V., inzh.

Developing and investigating automatic, portable methane detectors (methane-relay). Izv.vys.ucheb.zav.; gor.zhur. no.7:32-39 '59. (MIRA 13:4)

1. Donetskiy industrial'nyy institut. Rekomendovana kafedroy gornozavodskoy elektrotekhniki.
(Gas detectors)

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GULYAYEV, B.V., kand.tekhn.nauk

Electric measuring device based on the principle of the thermal expansion of mercury. Izv. vys. ucheb. zav. gor. zhur. no.8:121-122 '60. (MIRA 13:9)

1. Donetskiy ordena Trudovogo Krasnogo Znameni politekhnicheskiy institut. Rekomendovana kafedroy gornoy elektrotekhniki.
(Electricity in mining) (Electric measurements)

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ABEZGAUZ, I.S.; GULYAYEV, B.V.

Introduction of new designs. Prom. stroi. 40 no.7:12-14 '62. (MIRA 15:7)

1. Uralgipromez.
(Metallurgical plants—Design and construction)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, F.

Contribution of efficiency experts of the Maritime Territory.
Mast.ugl. 3 no.1:22 Ja '54. (MLRA 7:1)

1. Inzhener kombinata Primorskugol'.
(Maritime Territory--Coal mines and mining)
(Coal mines and mining--Maritime Territory)

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GULIAYEV, F.

Tasks of financial and bank employees' trade-union organizations. Den. i kred. 13 no. 1:33-38 Ja '55. (MLRA 8:2)
(Bank and banking)(Trade unions)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

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GULYAYEV, F.

Increase the activity of trade-union organizations in the effort to fulfill financial plans. Fin.SSSR 16 no.11:41-48 N '55. (Finance) (Trade unions) (MLRA 9:1)

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Improving a wooden plane. Politekh. obuch. no.8:88-89 Ag '58. (MIRA 11:9)

(Planes (Hand tools))

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GULYAYEV, F. S.

Insurance of farm crops. Zemledelie 24 no.9:28-32 S '62.
(MIRA 15:10)

1. Starshiy konsul'tant otdela gosudarstvennogo strakhovaniya Ministerstva finansov SSSR.

(Insurance, Agricultural--Crops)

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GULYAYEV, F.; KATSOV, M.

Make the procedure for determining loss caused by crop damage more accurate. Fin. SSSR 37 no.5:52-56 My '63. (MIRA 16:5)
(Insurance, Agricultural--Crops)

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GULYAYEV, G., inzh.

Unit for spraying anticorrosive coatings. Avt. transp. 36 no.1:15 Ja '58. (MIRA 11:1)

(Corrosion and anticorrosives)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, G.

Hoisting equipment for service pits. Avt. transp. 37 no.8:26-27 Ag '59. (MIRA 12:12)

(Hoisting machinery)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, G., inzh.

New lifting-jack hoists for passenger cars. Avt.transp. 37 no.1:17-19 Ja '59. (MIRA 12:2)
(Service stations--Equipment and supplies)

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GULYAYEV, G., kand.yurid. nauk (Kishinev)

Entries in the labor passport. Sots. trud 8 no.10:123-124 O '63. (MIRA 16:12)

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GULYAYEV, G.

On the right road. Pozh.delo 7 no.12:3-4 D '61.
(MIRA 14:11)

1. Zamestitel' nachal'nika otryada pozharnoy okhrany Ural'skogo zavoda tyazhelogo mashinostroyeniya imeni Sergo Ordzhonikidze.
(Ural Mountain region--Machinery industry--Fires and fire prevention)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, G., inzh.

New lifting system for maintenance and repair of motortrucks. Avt. transp. 39 no.6:19-21 Je '61. (MIRA 14:7)
(Hoisting machinery)
(Motortrucks—Maintenance and repair)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, G.; GAUKHMAN, R., master radiosporta (Moskva); GONCHARSKIY, V.; master radiosporta (L'vov); BUNIMOVICH, S., master radiosporta, (Stalino); SELEVKO, Yu., master radiosporta; IVANOVA, Ye., master radiosporta (Chelyabinsk); LABUTIN, L., master radiosporta (Moskva); SHEYKO, V., master radiosporta; GESELEV, B., master, radiosporta (Khar'kov); Shtraus, V., pervorazryadnik (Buguruslan); VOLOSYAN, M., pervorazryadnik (Simferopol').

Is it really entertainment and not sport? Radio no.5:13-14 My '60. (MIRA 13:12)

1. Predsedatel' sportivnoy komissii Federatsii radiosporta SSSR (for Gulyayev).

(Amateur radio stations)

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Presses for mounting and removing semiaxle cases. Avt. transp. 43 no.6:43 Je '65. (MIRA 18:6)

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GULYAYEV, G.A.

Effect of the transverse strain of a shaft on the precision of torque measurement. Izm.tekh. no.10:29-30 O'60. (MIRA 13:10)
(Torque--Measurement)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, G.A.

Using strain gauges for measuring the torque on shafts. Trakt. i sel'khozmash. 30 no. 12:24-26 D '60. (MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii sel'skogo khozyaystva.
(Torque--Measurement) (Strain gauges)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, G.A., inzh.

Automatic regulation of the feeding of the threshing mechanism of the combine. Mekh.i elek.sots.sel'khoz. 19 no.5:18-23 '61. 4

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii sel'skogo khozyaystva.

(Combines (Agricultural machinery))

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

[illegible]

Investigating measuring current-collecting devices. Izm. tekh. no.5:14-17 My '65. (MIRA 18:8)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

USSR/Radiophysics - Radiation of Radio Waves. Antennas, I-5

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 35287

Author: Vashkovskiy, A. V., Gulyayev, G. G., Il'chenko, L. S.

Institution: None

Title: Single-Wire Feeder

Original Periodical: Sb. statey nauch. stud. o-va Mosk. energ. in-t., 1955, No 8, 141-150

Abstract: None

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, G.A.; ALEKSEYEV, M.V., dotsent, rukovoditel' raboty

Fire prevention measures during the thermal contact pyrolysis of low-sulfur mazut in reactors with mobile packing. Pozh. bezop. no.4:24-31 '65. (MIRA 19:1)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAEV, G. I.

Organizatsiia rabochego mesta v mashinostroenii na osnove analiza trudovykh dvizhenii. Moskva, Mashgiz, 1949 112 p. illus.

[Planning the worker's operations in mechanical engineering on the basis of motion study.]

DLC: T60.M65G8 1949

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

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, G. I.

GULYAYEV, G. I. --"Effect of the Shape of Calibers of Continuous Frameless Machines on the Quality of Pipes." * (Dissertations for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions) Min of Higher Education USSR Higher Educational Institutions) Min of Higher Education USSR, Dnepropetrovsk Order of Labor Red Banner Metallurgic Inst imeni I. V. Stalin, Dnepropetrovsk, 1955

SO: Knizhnaya Letopis', No. 25, 18 Jun 55

* For Degree of Candidate in Technical Sciences

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25(5) PHASE I BOOK EXPLOITATION SOV/2241

Gulyayev, Georgiy Ivanovich

Ratsionalizatsiya trudovykh protsessov primenitel'no k usloviyam massovogo i krupnoseriynogo proizvodstva (Introduction of Efficient Work Processes for Large-Lot and Mass Production) 2d ed. Moscow, Mashgiz, 1958. 126 p. 5,000 copies printed.

Ed. (Title page): N. Ya. Kabanov; Reviewers: A. G. Losev, Engineer, and S. M. Mikhaylov, Engineer; Ed.: A. D. Gal'tsov, Engineer; Ed. of Publishing House: G. I. Barykova; Tech. Ed.: V. D. El'kind; Managing Ed. for Literature on the Economics and Organization of Production (Mashgiz): T. D. Saksaganskiy.

PURPOSE: This book is intended for technologists, standard setters, and foremen in machine-manufacturing plants; it may also serve as a handbook for designers of apparatus and equipment for workplaces.

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COVERAGE: This book discusses problems of efficient organization of workplaces encountered in the analysis of work processes in large-lot and mass production. Specific examples point out the most efficient and least strenuous work movements in connection with correct arrangement of parts, tools, and materials at the workplace. The introductory article, which reviews the life-long work of G. N. Gulyayev and his overall contribution to motion studies, was written by N. Ya. Kabanov. There are 18 references: 12 Soviet and 6 English.

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Introduction of Efficient Work (Cont.) SOV/2241

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

SOV/137-59-1-1770

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 232 (USSR)

AUTHORS: Chekmarev, A. P., Gulyayev, G. I.

TITLE: Groove Design for Reducing and Sizing Pipe-rolling Mills (Kalibrovka reduktsionnykh i kalibrovochnykh stanov)

PERIODICAL: V sb.: Prokatn. i trubn. proiz-vo. Moscow, Metallurgizdat, 1958, pp 276-294

ABSTRACT: In the process of reducing and sizing of pipes (P) subjected to little or no tension the quality of the P's is influenced not only by the magnitude of the deformation to which they are subjected in the separate stands of the reducing and sizing mill, but also by the degree of ellipticity of the grooves (G). The theory and practice of rolling of P's in two-high reducing and sizing machines shows that the diameter of the P entering the rolls must not exceed the width of the G's if reliable gripping of metal by the rolls as well as high quality of the rolled article is to be ensured. However, if the groove design of two-high pipe-rolling stands is based on the principle requiring that the width of each subsequent G be equal to the height of the preceding G, a condition results in which, as a consequence of wear, the width

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SOV/137-59-1-1770

Groove Design for Reducing and Sizing Pipe-rolling Mills

of the subsequent G's is smaller than the height of the preceding G's, which, in turn, causes overfilling of the G's with metal and leads to the formation of undercuts. Modern pass design includes provisions for the spreading of the metal It was established that twisting of P's occurs if the degree of ellipticity of G's in two-high rolling stands is greater than 1.120. This condition leads to overfilling of the G's with metal, distortion of the cross section of the P, and results, occasionally, in complete spoilage of the article. In addition to an intensification of the deformation processes and a decrease in the number of stands in a continuous reducing and sizing machine without mandrels, the employment of an increased degree of deformation in individual stands should also permit wide variation in the dimensions of the rolled articles. It is established that the quality of the P's is favorably affected by an increase in the degree of deformation in individual stands. Methods of computing parameters for two-high reducing and sizing machines with elliptical G's are presented.

B. Ts.

Card 2/2

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SHEVCHENKO, A.A., doktor tekhn. nauk; GULYAYEV, G.I., kand. tekhn. nauk; YURGELENAS, V.A., mladshiy nauchnyy sotrudnik; KITANENKO, V.P., inzh.; DERGACH, A.Ya., inzh.; ZUYEV, I.I., inzh.; KOROBOCHKIN, I.Yu., inzh.

Reduction of stretched thin-walled pipes. Biul. TSNIICHM no.4: 31-33 '58. (MIRA 11:5)

(Pipe) (Rolling (Metalwork))

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SOV/137-59-2-4323

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 2, p 284 (USSR)

AUTHORS: Shevchenko, A. A., Gulyayev, G. I., Yurgelenas, V. A.

TITLE: Stretch-reducing Operations on Welded Gas Pipes Without Subsequent Trimming of the Thickened Ends (Redutsirovaniye s natyazheniyem svarnykh gazoprovodnykh trub bez posleduyushchey obrezki utolshchennykh kontsov)

PERIODICAL: Byul. nauchno-tekhn. inform. Vses. n-i. trubnyy in-t 1958, Nr 4-5, pp 5-16

ABSTRACT: Stretch-reducing of welded gas pipes (P) from initial dimensions of 60x3.5 and 26.75x75 mm to 48 and 21.25 mm, respectively, was carried out in a two-high reducing stand equipped with individual motors which made it possible to ensure the necessary degree of stretching. Stretch reduction (SR) of the P's was accomplished in oval roll passes, the angular velocity of the rolls being so chosen that stretching by 4% was ensured in each roll stand. A total of four roll passes were calculated: Two roll passes, with an ellipticity of openings equivalent to 1.055 and 1.09, for the SR of P's from 60x3.5 to 48 mm, and two roll passes, with the same ellipticity, for SR of pipes from 26.75x2.75 mm

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Stretch-reducing Operations on Welded Gas Pipes Without Subsequent (cont.)

to 21.25 mm. Experimental SR operations yielded the following results: 1) Welded gas P's fabricated by the furnace-welding process can be expediently worked by the SR method, 2) basic parameters were established for the operation of SR of welded gas P's in which the trimming of P ends is omitted; 3) it was established that neither the wall thickness and the variations in wall thickness along a transverse section, nor the quality of the weld in the gas P's are affected by the ellipticity of the oval passes; 4) a nine-stand, two-high SR mill with a common drive capable of imparting a 4% elongation to the pipe in each stand was found to be most rational.

Ye. T.

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S/137/61/000/006/042/092
A006/A101

AUTHORS: Gulyayev, G.I., Finkel'shteyn, Ya.S., Gulyayev, I.N., Kolpovskiy, N.M., Osinskiy, V.A., Chudnyy, I.G., Bogomazov, M.M., Shkabatur, K.I.

TITLE: Investigating the operation of a three-roll reduction mill

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 6, 1961, 35, abstract 6D285 ("Byul. nauchno-tekhn. inform. Ukr. n.-i. trubn. in-t", 1959, no. 6 - 7, 48 - 57)

TEXT: The authors studied the operation of an 18-stand three-roll reduction mill for the purpose of establishing the rolling technology for both seamless and welded water-gas pipes under conditions of the Plant imeni Lenin. It was established that the combination of the former grooving of the rolls with kinematics of a three-roll reduction mill, makes it possible to obtain the necessary elongation only when reducing welded pipes of 2 and $1\frac{1}{2}$" diameter to 1" diameter. In the other cases the wall of the central pipe section is, after rolling, thicker than required by GOST 3262-55. The authors calculated and investigated new calibration of the rolls, for reducing pipes from 48 x 3.5 mm to

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A006/A101

21.25 x 2.75 mm. It was established that the efficiency can be raised if pipes of 2, $1\frac{1}{2}$ and 1" diameter are manufactured only by welding on mill no. 2, and pipes of $1\frac{1}{4}$, $\frac{3}{4}$ and $\frac{1}{2}$" diameter on mill no. 1 with the use of reduction. Preliminary calculations have shown that the reduction of 7.5 m long pipes from a 2" diameter to $1\frac{1}{4}$", from 2" to $\frac{3}{4}$" and from $1\frac{1}{2}$" to $\frac{1}{2}$" will raise the efficiency of the pipe-welding shop at the Plant imeni Lenin by 12.81%; the coefficient of metal consumption will increase by 14%. To maintain the coefficient of metal consumption on the level of planned figures, and to obtain a further increase in the efficiency of the reduction mill, it is necessary to increase the length of the welded pipes prior to rolling up to 9.6 - 15.5 m.

Yu. Manegin

[Abstracter's note: Complete translation]

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1.1300 also 1413, 1454

S/137/61/000/003/013/069
A006/A101

AUTHORS: Shevchenko, A.A., Gulyayev, G.I., Yurgelenas, V.A., Kitaenko, V. P., Dergach, A.Ya., Zuyev, I.I., Korobochkin, I.Yu.

TITLE: A technology of pipe reduction with tension

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no.3, 1961, 33, abstract 3D266 ("Byul. nauchno-tekhn. inform. Ukr. n.-i. trubn. in-t", no.6 - 7, 1959, 15 - 21)

TEXT: VNITI together with the Yuzhnotrubnyy Plant determined the parameters of pipe reduction with tension, in order to assist the pipe-rolling shops in assimilating the given technology. For the first time pipes of 57x2.75; 50x x2.75; 38 x 2.75; and 38 x 2.5 mm with ± 10% tolerances of wall thickness were obtained by hot rolling for the cold drawing shop. The authors investigated and recommended the grooving of rolls of the reduction mill with higher partial deformations.

K. U.

[Abstracter's note: Complete translation.]

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S/133/61/000/003/009/014
A054/A033

AUTHORS: Shevchenko, A. A., Doctor of Technical Sciences; Gulyayev, G. I. Candidate of Technical Sciences; Anisiforov, V. P., Candidate of Technical Sciences; Arutyunov, I. G., Candidate of Technical Sciences; Yurgelenas, V. A., Engineer, and Fedin, V. P., Engineer

TITLE: The performance of two-high reducing mills with individual drive

PERIODICAL: Stal', no. 3, 1961, 251 - 256

TEXT: When planning three-high reduction mills, the VNIITMETMASh and UkrNITI made a thorough study of the two-high reduction mills with individual drive, not supplied with rotation-stabilizers. In order to match the operation of these two types of mills the single deformation values were taken a little higher (m_i = 3.5 ÷ 4.2 %) than usual in Soviet plants. The tube dimensions varied between 96 x 3.25 - 3.5; 96 x 4 - 4.5 and 96 x 5 mm. The motor speeds for these types of tubes are given in table 2. Before reduction the tubes were heated to 1040 - 1080°C, the number of motor revolutions was recorded on the switchboard by means of an MM type tachovolt-

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meter with a relatively low accuracy (± 10 rpm). The data compiled for the average change in wall-thickness at the end and central parts of the tubes rolled in 21 and 17 stand mills are given in tables 3 and 4. They show that when the tension is increased the wall-thickness in the central part of the tube decreases, while the increase in wall-thickness at the tube ends will reach a maximum only at tensions of 0 - 0.5 %. In all other cases any increase in tension reduces the wall-thickness at the tube ends. Table 4 shows that the deviation in wall-thickness in lateral direction suddenly increases at the ends, irrespective of the tension, while it decreases in the central parts, when the tension is raised. With templates of 96 x 4 and 96 x 5 mm tubes it was established that the transverse section remains fairly stable even when no tension at all was applied, whereas the 96 x 3.25 mm tubes displayed defects (beads and fractures) when reduced without tension, by 5.4 and 7 %. When applying a tension of 3.5%, no defects were observed in the walls of the 96 x 3.5 mm tubes. The values of kinematic tension of 3.5 % in the 21-stand and of 4% in the 17-stand mills does not represent the limit. Experiments showed that it was possible to increase the kinematic tension and to produce tubes with even thinner walls in the central parts. If the tubes are rolled at the right temperature and

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the roll speed adjusted carefully, the coefficient of tension can be as high as 0.7 - 0.8 (Ref. 7: G.I. Gulyayev; V. A. Yurgelenas: Determination of Some Basic Technological Parameters of Tube Reduction with Tension. Transactions of the UkrNTO ChM, 1958, vol. 13). Tests carried out to establish the maximum values of torques and those for stabilized operation show that the torque values characterize the non-uniform load of the stands which in the first place depends on the adjustment of the roll-speed. When the tension is increased from 3.5 to 4%, the torques of the middle-stand motors decrease uniformly, once the rolling process has been stabilized. The tests also proved that in the experimental reductions the motors were not always loaded to full capacity, while overloading also occurred due to the inaccurate adjustment of the revolution of rolls. (n). When calculating the reduction of the mills, depending on the tension applied, the wall-thickness of the tube and partial deformation obtained in one stand have to be taken into account. The oscillogramm of current intensity shows that, at the rate at which the tube proceeds to the next stand, the current intensity curve declines, under the effect of the frontal tension of the following stand. This step-like character of the de-

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crease in current intensity indicates the moment, when the tube enters the next stand. When the tension at the rear (viewed from the preceding stand) is taken as constant, the maximum stretching force will be proportionate to the difference of the ordinates of the maximum and stabilized values of the current. The decrease in the general moment from the maximum to stabilized state will be proportionate to the moment acting on the stand investigated from the next following stand:

$$\Delta M_{gen} = TD_r \quad (1)$$

$$T = k \cdot \Delta I \quad (2)$$

$$\Delta I = I_{max} - I_{stab} \quad (3)$$

$$k = \frac{v}{1.03\, n_{i.r} \cdot D_r} \quad (4)$$

where M_{gen} = general moment, k = coefficient of proportionality, v = vol-

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tage, v, D_r = rolling diameter of the roll, mm, $n_{i.r}$ = velocity of idle run of rolls, rpm, T = stretching force, kg, I_{max} and I_{stab} = current intensities for maximum and stabilized moments, a. ABSTRACTER'S NOTE: subscripts gen. (general), r(rolling), i.r. (idle run), stab. (stabilized) are translations of the original об (obshchyy), к (katayushchyy), хх (kholostoy khod) and уст (ustanovlenyy) . Based on these formulas it is possible to calculate the actual stretching forces and longitudinal stresses in the tube on the stand, when being reduced at different tensions and various initial wall-thicknesses. The distribution of forces and stresses of tension has no regular character; e.g., the maximum value of tension stress is 3.6 kg/sq mm (practically the yield point of the metal processed) while at a tension of 3.5 % it amounts to 2.6 kg/sq mm and at 4 % to 1.8 kg/sq mm. The maximum stretching force attains 2100 kg. The difference in stretchingforces for the various stands of the mill are, to a certain extend, caused by the inaccurate adjustment of the rolls. The investigation of roll-speed shows that there is a deviation between the actual and the rated speed of the rolls, both in idle run and in operation. In some cases the speed increases for the subsequent rolls, sometimes, however, a

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decelaration is observed. The velocity drops on successive rolls affects the reduction process in several aspects: energy consumption, torques, forces, tension, etc. Therefore the correct adjustment of the number of roll revolution in stands with individual drive is of great importance, because variations in the roll speed result in an irregular change of energetic parameters, which unfavourably affects the tube quality. The tube walls will not be of uniform thickness and cracks may occur even at relatively low tensions. There are 5 figures, 4 tables and 8 references: 7 Soviet, 1 non-Soviet.

ASSOCIATION: UkrNITI, VNIIMETMASh

Table 2: ① Rotation speed of electromotors p.m. at the reduction of tubes to 38 mm from 96 x 3, 96 x 4 and 96 x 5 mm, (A, B, C); ② No. of stand; ③ Reduction in the 21-stand mill; ④ Reduction in the 17-stand mill; ⑤ A B C; ⑥ A B C; ⑦ Rotation speed of motor, rpm, at tension of med,%; ⑧ The power of each motor: 36 kw, the range of revolutions 500-1000 min., the transmission value of reducers for stands 1 - 6 : 12,696;

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S/137/62/000/001/084/237
A052/A101

AUTHORS: Gulyayev, G.I., Yurgelenas, V.A.

TITLE: Roll calibration and tube drawing in two-, three- and four-roll reducing and sizing mills

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 1, 1962, 32, abstract 1D207 (V sb. "Stal'", Moscow, Metallurgizdat, 1961, 335 - 354)

TEXT: Methods of calculating 2-, 3- and 4-roll oval roughing grooves on mandrelless continuous tube rolling mills are given. In all cases the profile is formed in like manner and can be calculated by the universal formulas with an allowance for the number of rolls i forming the groove. Also methods of determining the tube drawing (calculating the relation between the wall thickness of the initial tube and that in the middle part of the ready tube) in the group-drive mills are proposed. An empirical formula is suggested for determining the length of the thickened tube ends, depending on the mean plastic stretch coefficient and the distance between the centers of the working stands. A good agreement of the proposed formulas with the practical data is shown. There are 18 references.

[Abstracter's note: Complete translation] Ye. Bukhman

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S/137/62/000/001/085/237
A052/A101

AUTHORS: Gulyayev, G.I., Yurgelenas, V.A.

TITLE: The change of the mean wall thickness of tubes at a continuous mandrelless rolling without stretching on single-drive mills

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 1, 1962, 32, abstract 1D208 (V sb. "Stal'", Moscow, Metallurgizdat, 1961, 373 - 384)

TEXT: An analysis is given of empirical formulas for determining the changes in the mean wall thickness of tube ends at reducing without stretching. The formulas are proposed by Gleyberg, Krayev, Shevchenko, Shveykin and Gun, Kolmogorov and Gleyberg,-Bler.

Ye. Bukhman

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

S/123/62/000/006/015/018
A004/A101

AUTHORS: Gulyayev, G. I., Sitkovskiy, I. S., Khabarov, N. D., Baykova, T. P., Bratenkova, Ye. V.

TITLE: The practice of pressing converted tubes from the steel grades ЕИ 846 (EI846), ЕИ 847 (EI847), ЕИ 702 (EI702), Х12Ф1 (Kh12F1), СН2 (SN2) and 0Х18Н9Т (OKh18N9T)

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 6, 1962, 25-26, abstract 6V119 (V sb. "Proiz-vo trub", no. 4, Khar'kov, Metallurgizdat, 1961, 5-8)

TEXT: Tests were carried out to press converted tubes from the difficult to pierce steel grades EI847 and Kh12F1 and FI846, EI702 and SN2 which cannot be pierced on machines with oblique-positioned rolls. For a comparison, the OKh18N 9T grade steel was used which is well-introduced in tube production. Pressing was carried out on a 600-ton vertical hydraulic press. The blanks in the form of turned and drilled sleeves of 83 mm outer diameter and 24 mm wall thickness were heated in a horizontal induction furnace with electromechanical pusher up to the following temperatures: EI846 - 1,200°C, EI847 - 1,220 - 1,230°C, EI702 -

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1,150°C, Kh12F1 - 1,160 - 1,170°C, SN 2 - 1,220 - 1,250°C, OKh18N9T - 1,170 - 1,190°C. The heated blanks were wrapped in a 0.27 mm thick glass fabric while the inner surface of the blanks was sprayed with glass powder. The dies, spikes and container bushes were lubricated with a graphite-mineral oil mixture. The pressed tubes of 39.0 - 41.5 x 3.75 - 40 x 1,000 - 1,700 mm size showed a satisfactory quality: The transverse nonuniformity in wall thickness amounted to 0.19 - 0.56 mm, which does not exceed 6.0 - 7.5% of the wall thickness. The pressure gauge readings were recorded, characterizing the pressing stresses which for the different steel grades amounted to 180 - 450 tons. The die service life made of 3Kh2V8 (3Kh2V8) grade steel was not satisfactory in pressing tubes of the steel grades EI846, EI847, Kh12F1 and EI702. Already after the first pressing, scratches and adhering metal particles showed on the die working surface, while after two subsequent pressings the die had to be cleaned, since considerable lines and scratches would have appeared on the tubes if they had been used furthermore. The life of the spikes from 3Kh2V8 steel was satisfactory. 14 tubes were pressed with one spike. There are 3 figures.

V. Pavlyuchenko

[Abstracter's note: Complete translation]

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SHEVCHENKO, A.A., doktor tekhn. nauk; GULYAYEV, G.I., kand.tekhn.nauk; YURGELENAS, V.A., inzh.

Reducing and straining welded gas and water pipes without subsequent cutting of thickened ends. Biul.nauch.-tekh.inform.VNITI no.4/5: 5-16 '58. (MIRA 15:1)

(Pipe, Steel)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

LUNEVSKIY, I.I.; GULYAYEV, G.I., inzh., retsenzent; FEDOT'YEV, V.P., inzh., retsenzent; POPOV, S.G., inzh., red.; BOBROVA, Ye.N., tekhn. red.

[How to organize multiple machining at a machinery plant] Kak organizovat' mnogostanochnuiu rabotu na mashinostroitel'nom zavode. Moskva, Mashgiz, 191. 73 p. (MIRA 16:5)
(Machinery industry--Management)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

S/133/62/000/007/009/014
A054/A127

AUTHORS: Shevchenko, A.A., Doctor of Technical Sciences; Gulyayev, G.I., Candidate of Technical Sciences; Zimin, A.K., ~~Engineer~~

TITLE: The effects of the heating temperature and chemical composition on the changes in the wall-thickness of tubes during reduction

PERIODICAL: Stal', no. 7, 1961, 632 - 633

TEXT: At the UkrNITI tests were carried out with 180-mm long and 50-mm external diameter machined tubes of 10 (10) and 1Х18Н9Т (1Kh18N9T) steels with heating in an electric furnace in an argon atmosphere and reduction on a 7-stand double-roll mill (with 160-mm diameter rolls). After reduction the tubes were immersed in water, scale could therefore develop only for a short time, i.e., during feeding to the mill and rolling (25 - 45 sec). At 50 mm from the tube end annular notches were made on which the wall thickness was marked (at six points before and 12 points after reduction). The tests were carried out at 800, 900, 1,000, 1,100 and 1,200°C. The effect of the chemical composition was studied on tube branches 50 mm long, with a wall-thickness of 4.5 mm, while reducing them

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to a diameter of 38.5 mm. Before reduction, the tubes [made of the 1Kh18N9T, ШХ 15 (ShKh15), 45, 35 (St.5), 10 steel grades] were heated in an argon atmosphere to 980°C. Both test series proved that neither temperature (in the conventional temperature range) nor chemical composition had a marked effect on the changes in wall-thickness, which did not exceed 0.66 mm (relating to a 23% reduction) at the above-mentioned temperatures. However, if heating takes place, in the furnaces used at present for this purpose, scaling on the tube surface cannot be avoided. Scaling is directly related to the heating temperature and heating time; it also depends on the grade of steel. Calculations of the changes in tube wall-thickness will, therefore, have to include corrections for scale-formation. There is 1 figure.

ASSOCIATION: UkrNITI

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GULYAYEV, G.I., kand.tekhn.nauk; YURGELENAS, V.A., kand.tekhn.nauk; YEROKHIN, I.N., inzh.; GALITSKIY, B.M., inzh.; DERGACH, A.Ya., inzh.; KIRVALIDZE, N.S., inzh.; KURILENKO, V.Kh., inzh.

Potentialities of pipe reduction in automatic pipe mills. Met.i gornorud.prom. no.5:33-36 S-O '62. (MIRA 16:1)

1. Ukrainskiy nauchno-issledovatel'skiy trubnyy institut i Yuzhnotrubnyy zavod.

(Pipe mills)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

GULYAYEV, G.I., kand. tekhn. nauk; DOVGAL', A.I., insh.

Selecting the amount of widening during the sizing reduction of pipe. Stal' 25 no.6:546-549 Je '65.

(MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy trubnyy institut.

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[illegible], [illegible]

36345 Opytnyye posevy lesnykh polos gnezdovym sposobom na polyakh kolkhozov penzenskoy oblasti. Les 1 step', 1949, No. 6, S. 84-89

SO: Letopis' Zhurnal'nykh Statey, No. 49, 1949

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R000617320013-8

[illegible], [illegible]; [illegible].

Wheat

Late fall sowing of spring wheat. Sel. i sem. 19 No. 7, 1[illegible].

Monthly List of Russian Accessions, Library of Congress, October 1[illegible]. UNCLASSIFIED.

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