

GEL'DERMAN, L.S.

Theory of metal rolling. Leningrad, Glav. red. lit-ry po Chernoi metallurgii, 1935. (Mic 53-712)

Collation of the original: 90 p.

Microfilm TJ-6

1. Rolling-mill machinery.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

PROCESSES AND PROPERTIES INDEX

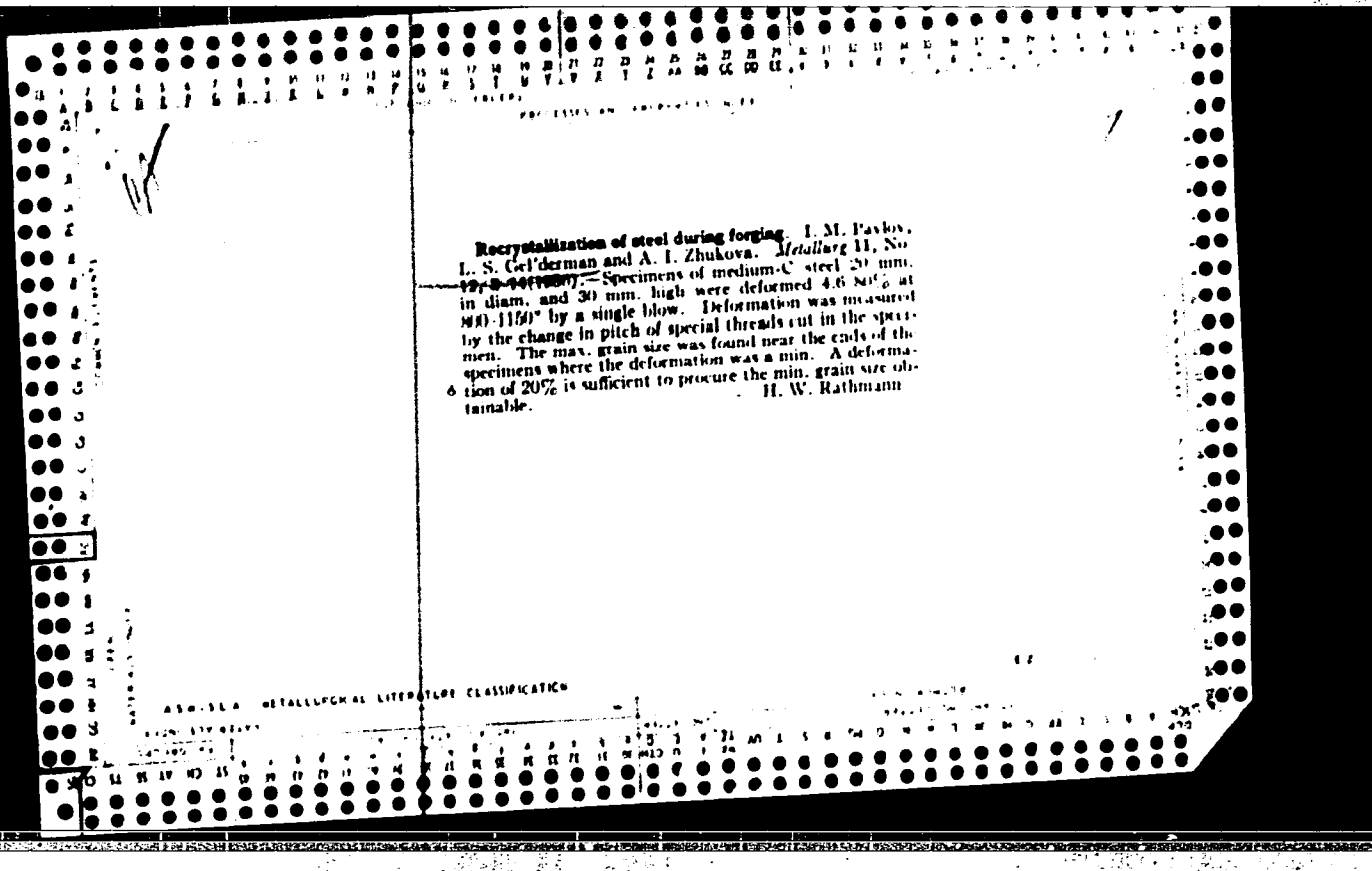
9

CA

Investigation of spreading of alloy steels during rolling
Cast alloys. Ya. S. Gintzburg and L. S. Gelberman
Dept. Central Inst. Metals Leningrad No. 18, 22 07
(1975). - The pearlite steels tested are widely used in
automobile, tractor and turbine work. In all cases, spread
is increased with a drop in rolling temp. The differences
in spreading between the various steels decrease as the
temp. rises. The addn. of C, Ni and Cr-Ni to C, Ni and
Cr-Ni steels, resp., causes an increase in spreading. Cr
is more effectively than Ni in spreading of Cr-Ni steels
H. Z. Kamich

ASSOCIATED METALLURGICAL LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



GELIDERMAN, L.S.

SOV/2301

18(0)

PHASE I BOOK EXPLOITATION

Metallurgiya sbornik statey, [no.] 1 (Metallurgy; Collection of Articles, No. 1) [Leningrad] Sudpromgiz, 1958. 177 p. 1,500 copies printed.

Resp. Ed.: G. I. Kapyrin, Candidate of Technical Sciences; Ed.: A. V. Popov; Tech. Ed.: O. I. Kotlyakova.

PURPOSE: This book is intended for engineers and technicians at industrial plants, for scientific personnel at research and educational institutions, and for students of advanced metallurgy.

COVERAGE: The articles in this collection deal with the production and hot forming of steel and titanium ingots. Both theoretical and practical aspects are covered. Topics discussed include: crack formation during thermomechanical treatment, dependence of plasticity of low-carbon chrome-nickel steel on the method of steelmaking, vacuum melting of austenitic stainless steel, beneficial effect of hot deformation on steel properties, vectorial properties of sheet metal as related to rolling conditions, crystallization and ingot structure, present status of titanium-ingot production, etc. Numerous references, principally Soviet, accompany the articles.

Card 1/3

SOV/2301

Metallurgy; Collection (Cont.)

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Metallurgy; Collection (Cont.)

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AVAILABLE: Library of Congress

Card 3/3

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10-12-59

Gelderman, L.S.

TABLE I BOOK EXTRACTS

867/958

Wallenberg, Henrik Gustaf, No. 2 (Wallenberg Collection of Articles, No. 2),
Lundborg, Gleditsch, 1979. 308 p. 2,300 copies printed.

Berg, M.I. O.I. Karpits, Candidate of Technical Sciences; M.I. O.I. Gromov
and B.J. Galanter, Tech. Sci. V.I. Treubnik.

NOTE: This collection of articles is intended for technical personnel at
laboratory plants and at research and educational institutions. It may also
be used by students taking courses in advanced metallurgy.

CONTENTS: The articles present the following material: original data on the
production of steel in open-hearth, electric, and vacuum arc furnaces; infor-
mation on the rolling of steel sheets of variable thickness along the thickness
profile of an investigation of sheet metal made from large ingots and problems
of ensuring the temperature of liquid steel; some observations on the
production processes in ladles, and practical recommendations are given
concerning specific problems. Biographical data on authors. Most of the
articles are accompanied by references.

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Engineer. Process Characteristics of the
Production of Non-oxidized Titanium-Alloy Sheets

Magidin, I.Z., Engineer, and S.M. Shal'vich. Possibility of
Using Standard Titanium Springs 250

WALLBERG: Library of Congress

867/958
7-82-80

GEL'DERMAN, L.S., kand.tekhn.nauk; KUSTOV, A.M., inzh.; PESTOV, V.S., inzh.

Rolling sheets of shaped section. Metallurgiya 2:153-164 '59.
(MIRA 14:3)
(Rolling (Metalwork))

GEL'DERMAN, L.S., kand. tekhn. nauk

Characteristics of sheet macrostructure in relation to the
conditions of rolling. Obr. met. davl. no.5:72-82 '59.
(MIRA 13:3)

(Rolling (Metalwork))

(Sheet metal)

GEL'DERMAN, L.S.; KULYAPINA, B.P.

Effect of upsetting on the macrostructure and mechanical
properties of forgings. Kuz.-shtan.proizv. 1 no.11:1-5
N '59. (MIRA 13:3)
(Forging)

GELDERMAN, L.S.

PHASE I BOOK EVALUATION 80V/112

Materials; general survey, No. 3 (Physical Metallurgy/Collection of Articles, No. 3), Leningrad, Sverdlovsk, 1958. 300 p. 3,200 copies printed.

Ed.: G. L. Shupria, Candidate of Technical Sciences; Library and Tech. Ed.: E. L. Shuprikin.

Program: This collection of articles is intended for scientific personnel, lecturers and educational institutions and industrial plants and also for advanced students.

Contents: The articles report the results of investigations of 1) the effect of stress on the susceptibility of constructional and heat-resistant steels and titanium alloys to brittle failure at various temperatures under various conditions of loading (long-time, short-time, cyclic, concyclic); 2) alloys, structures, and conditions of alloys as related to their mechanical properties, and 3) corrosion resistance and evaluation of stainless and heat-resistant steels. The articles are accompanied by numerous brief and non-brief references. No verbatim translations are mentioned.

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AVAILABLE: Library of Congress

Card 6/6

Y/181/101
7-50-60

GEL'DERMAN, L.S. kand.tekhn.nauk; KULYAPINA, E.P., inzh.

Structure and properties of forgings in connection with the
conditions in which they were forged. Metallovedenie 3:349-
357 '59. (MIRA 14:3)

(Forging)

GOLDENKO, A. Ye. [Holdenko, A. I. E.]; GEL'DERMAN, M. A. [Hel'derman, M. A.]

Attachment for the machining of the worms of caramel wrapping machines.
Kharch.prom. no.4:73-74 O-D '63. (MIRA 17:1)

GELBERMAN, M.A.; GOLUBIKO, A. Ye.

High-speed diesel engine. Mashinostroyitel' no. 1024 (1964)
(MIRA 1967)

GELDERMAN, M.A.; GOLDENKO, A.Ya.

High-speed draw-in chucks. Rationalizatsia 14 no.10:22
'64.

POLOVCHENKO, I.G., kand.tekhn.nauk; GEL'DFAND, V.I.

Automatic correction of the deviations of mixture batch weights
in charging open-hearth furnaces. Avtom.i prib. no.1:18-21
Ja-Mr '62. (MIRA 15:3)

1. Dneprovskiy metallurgicheskiy zavod im. Dzerzhinskogo (for Polovchenko).
2. Ukgipromez (for Gel'dfand).
(Open-hearth furnaces) (Automatic control)

GEL'DFEL'D, B.S.; TSKHADADZE, G.O.

Collectors with plastic hulls for use in electric machines. Elek.
i tepl. tiaga 7 no.6:5-6 Je '63. (MIRA 16:9)

1. Nachal'nik konstruktorskogo byuro Tbilisskogo elektrozostroitel'-
nogo zavoda im. V.I.Lenina (for Gel'dfel'd). 2. Nachal'nik
tehnologicheskogo byuro Tbilisskogo elektrozostroitel'nogo
zavoda im. V.I.Lenina (for TSkhadadze).
(Electric machinery)

GEL'DIYEV, G.

GEL'DIYEV, G.: - "Material on the study of Botkins's disease in the city of Ashkhabad".
Ashkhabad, 1955. Turkmén Medical Inst imeni I. V. Stalin. (Dissertation for the
Degree of Candidate of Medical Sciences)

SO: Knizhnaya Letopis', No. 40, 1 Oct 55

Country : USSR
Category: Virology. Viruses of Man and Animals
Rickettsias

E

Abs Jour: Ref Zhur-Biol., No 23, 1958, No 103536

Author : Gel'dner, L. B.
Inst : Molotov Medical Institute
Title : Methods of Studying the Effect of Environmental
Factors on the Typhus Virus

Orig Pub: Tr. Molotovsk. med. in-ta, 1957, No 26, 202-204

Abstract: The experiments were performed by the method of
epidermal membranes. Only the conclusions are
presented in the article.

Card : 1/1

GEL'DNER, L. B.

F

Abs Jour : Ref Zhur-Biol., No 13, 1958, 574-52

Author : Gel'dner L. B.
Inst : Molotov Medical Institute
Title : Experiment of Vegetative Hybridization of Pro-
teus vulgaris on a Nutritive Medium Containing
Proteins of Rickettsia Prowazekii

Orig Pub : Tr. Molotovsk. med. in-ta., 1957, vyp. 26, 205-
207

Abstract : Two strains of proteus vulgaris and one strain
of coli bacillus were passed on a "rickettsia
medium" (a mixture of typhus infected lice gro-
und in a mortar and dissolved in physiological
solution). After 20 passages were carried out at
three 24 hour intervals both strains of proteus
began to agglutinate with the typhus serum in

Card 1/2

GENEVA, I.B., Soviet (Perm)

Role of Perm scientists in the inception and development of
medical microbiology in the Urals. Trudy Perm. gos. med. inst.
43:42-53 '63. (MIP: 17.6)

GELNER, H.

~~CONFIDENTIAL~~
Tularemia. Poliski tygod. lek. 5:7, 13 Feb. 50. p. 266-9; contd.

GL:IL 19, 5, Nov., 1950

GELDNER, M.

Tularaemia; symptoms and clinical course. Polski tygod. lek. 5:8,
20 Feb. 50. p. 305-7; contd.

CLM 19, 5, Nov., 1950

CHELONER, H.

Tularemia. Polski tygod. lek. 5:9, 27 Feb. 50. p. 345-8

CIWL 19, 5, Nov., 1950

(cont.)

Vita. Neurochir. A. V. Kharuzin. A specific tuberculous meningitis with a high degree of calcareous and hyaline streptococci. The principal treatment of tuberculous meningitis, combined with streptococcal therapy. *Neurochir. A. V. Kharuzin. SOVIET JOURNAL OF NEUROLOGY*, 1972, 1/2 (277-307) Tables 2

Surgical treatment of tuberculous meningitis combined with streptococcal therapy gives recovery in about 50%. Of 23 cerebral cases (11 supra-, 12 infratentorial) operated on before and after the streptococcal era, 4 cases of infratentorial tuberculous meningitis are described in detail. The dosage of streptococci is 0.01-0.1 g./day intrathecally and 1.0-2.0 g./day intramuscularly during 6 weeks. The same course is repeated at intervals. Diagnostic lumbar puncture in patients with 90% of the internal or anterior horns of great value for the indication of early intrathecal streptococcal therapy. *Neurochir. A. V. Kharuzin. SOVIET JOURNAL OF NEUROLOGY*, 1972, 1/2 (277-307) Tables 2

SO: ENDOCRINOLOGIA, VOL. 7, NO. 8, SECTION VIII August 1971.

GELDNER, Mieczyslaw

Proper approach to balneological therapy of sciatica in view of
experience with surgical treatment. Neurologia etc. polska 5 no.1:
69-76 Jan-Feb 55.

1. Z kliniki neurol. A.M. w Warszawie; kier. prof. dr. J.Chorobski.
(SCIATICA, therapy
balneother., relation to surg. treatment)
(BALNEOLOGY, in various diseases
sciatica, relation to surg. treatment)

BODRYY, M.; GUSEYNOV, M.; AGRETKIN, S.H., red.; ATALZHANOV, A., red.; BIRA, Ya.I., red.; GELUDYEV, A., red.; GOLOVKIN, A.V., red ; MAMEDKULIYEV, A., red.; KATALOV, Ch., red.; KHALMURADOV, B., red.

Sovet Turkmunistany. Soviet Turkmenistan. Ashkhabad, Turkenskoe izd-vo, 1964. 103 p. [In Turkmen, Russian, English, and Arabic] (MIRA 18:4)

GEL'DIYEV, E.

Tectonics of the Chikishlyar region. Izv. AN Turk. SSR. Ser. fiz.-
tekh., khim. i geol. nauk no.4:67-76 '63. (MIRA 17:2)

1. Institut geologii AN Turkmenskoy SSR.

KHADZHINUROV, N.; GEL'DIYEV, E.

Geological structure of the Kamyshdza deposit. Izv. AN Turk. SSR.
Ser. fiz.-tekh., khim. i geol. nauk no.4:121-123 '63. (MIRA 17:2)

1. Turkmenskiy filial Vsesoyuznogo neftegazovogo nauchno-issledovatel's-
kogo instituta.

GEL'DIYEV, E.

Reservoir properties of the arenaceous-silt rocks of red beds in
the Okarem deposit. Dokl. AN Azerb. SSR 19 no.8:49-53 '63.
(MIRA 17:11)

1. Institut geologii AN AzSSR. Predstavleno akademikom AN AzSSR Sh.
F. Mekhtiyevym.

GEL'DYEV, K.

Q-3

USSR / Farm Animals, Cattle (Small)

Abs Jour: Ref Zhur-Biol., No 2, 1958, 7175

Author : K. Gel'dyev

Inst : Not given.

Title : Saradzhinskiy Breed - Planned Grading Up of
Local Kurdyuk Sheep.

Orig Pub: S. kh. Turkmenistana. 1957, No 3, 38-42

Abstract: No abstract.

Card 1/1

GEL'DYEV, Kh.

Some data from the experience of polyclinical examination of workers at the S.M.Kirov Synthetic Rubber Plant. Trudy Vor. med. inst. 47:88-89'62 (MIRA 16:12)

1. Kafedra organizatsii zdravookhraneniya Voronezhskogo meditsinskogo instituta.

GEL'DYEV, Kh.

Incidence of disease with a temporary loss of working capacity
in chronic intoxication with styrene in industry. Zdrav. Turk.
8 no.1:36-38 Ja '64. (MIRA 17:5)

1. Iz kafedry organizatsii zdorovokhraneniya Voronezhskogo
meditsinskogo instituta (zaveduyushchiy - pr. F. T. Ya. Tkachev).

GEL'DIYEVA, A.G.

Conditioned reflex changes in the phagocytic activity of leucocytes of the peripheral blood and the effect of cortical stereotype on that process. Izv.AN Turk.SSR no.2:65-69 '55. (MLRA 9:5)

1. Turkmenskiy gosudarstvennyy meditsinskiy institut imeni I.V. Statlina.

(LEUCOCYTES) (BRAIN)

GEL'DYYEVA, A.G. (Ashkhabad)

Cortical regulation of phagocytosis. Pat. fiziol. i eksp. terap.
6 no.6:40-44 N-D'62 (MIRA 17:3)

1. Iz kafedry patofiziologii (zav. - prof. V.A.Kusin) Turkmen-
skogo meditsinskogo instituta.

GEL'DZAND, L.L. (Leningrad)

Abcesses and phlegmna of the head and neck in children. Fel'd. i
akush. 26 no.9:16-19 S '61. (MIRA 14:10)
(NECK--ABCESS) (PHLEGMON)

CELEBOVICH, T A

USSR/Geochemistry
Biochemistry
Boron

Aug 1946

"Boron in the Sea," T A Celebovich

"Trudy Biogeokhimicheskoy Lab" No 8

Analytic methods of determining small quantities of boron. History of the presence of boron in sea water; history of the presence of boron in sea organisms. Experimental data (boron in water, large salt lakes, marine plants, marine animals). Exchange between the sea and dry land; conclusions. Tables and bibliography.

3T35

GELEI, Anna

"International comparison of the proportions of investments"
by Luc de Voghel. Reviewed by Anna Gelei. Stat szemle
41 no.2:214-216 F '63.

OMMI, J.

OMMI, J. Fauna and flora of some temporary stagnant pools in a meadow of
the Török Mountains in Upper Hungary. I. Stagnant pools. In
German. p. 2-5.

Vol. 1, No. 3/4, 1954.

ACTA HUNGARICA

SCIENTIAE

Budapest, Hungary

So: East European Accession, Vol. 5, No. 5, May 1956

GELBI, J.

GELBI, J.

GELBI, J. Fauna and flora of some temporary stagnant pools in a meadow of the Kézsceny Mountains in Upper Hungary. III. Coleoptera. IV. Turbellaria. In *Ferhat*. p. 259.

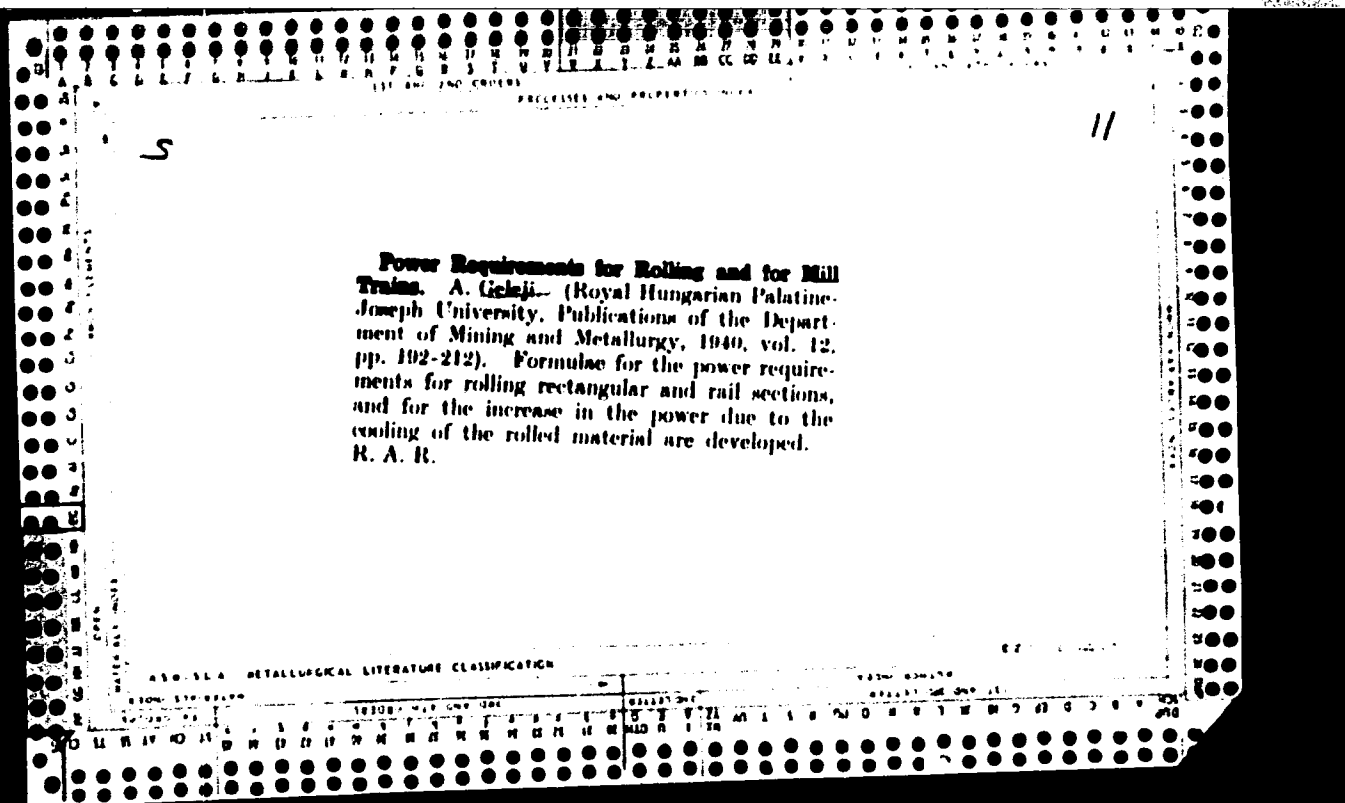
Vol. 5, No. 3/4, 1954.

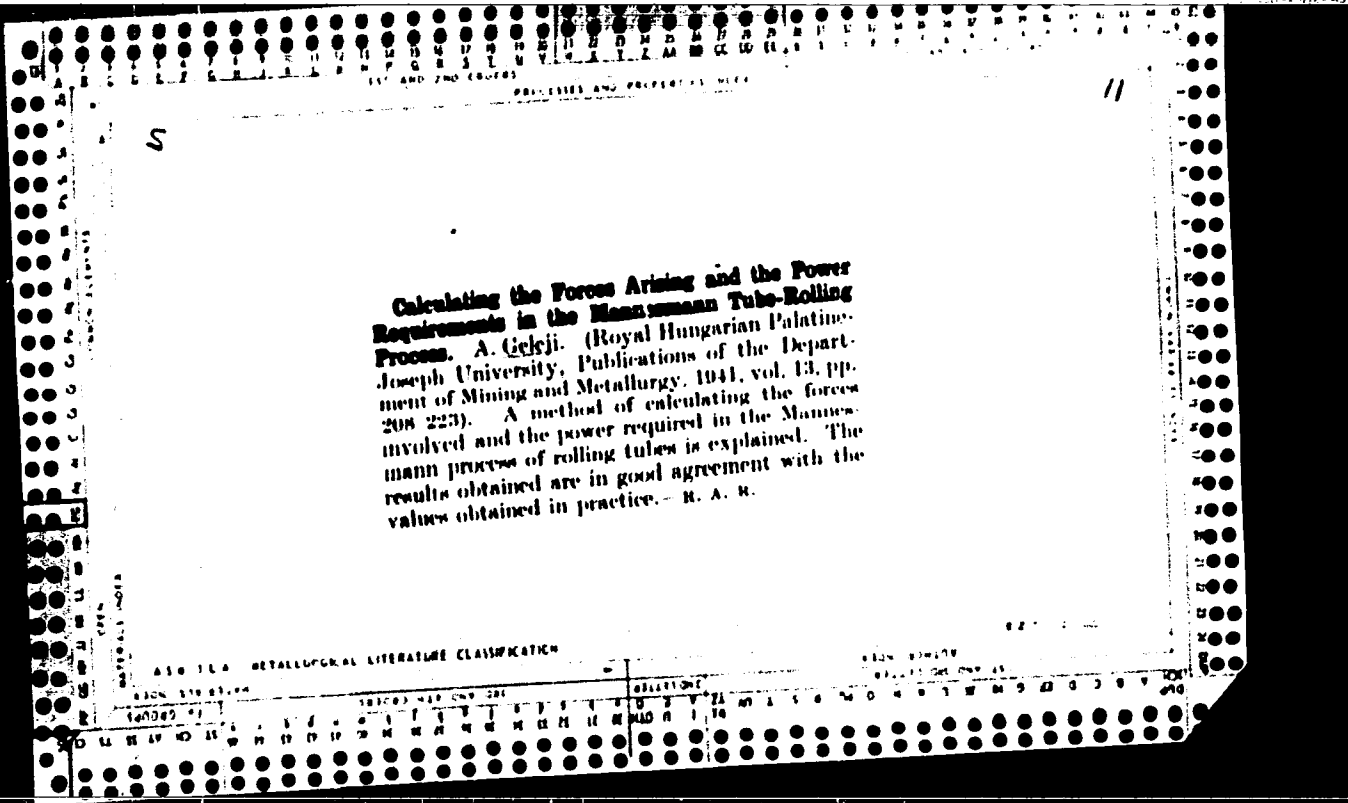
ACTA BIOLOGICA.

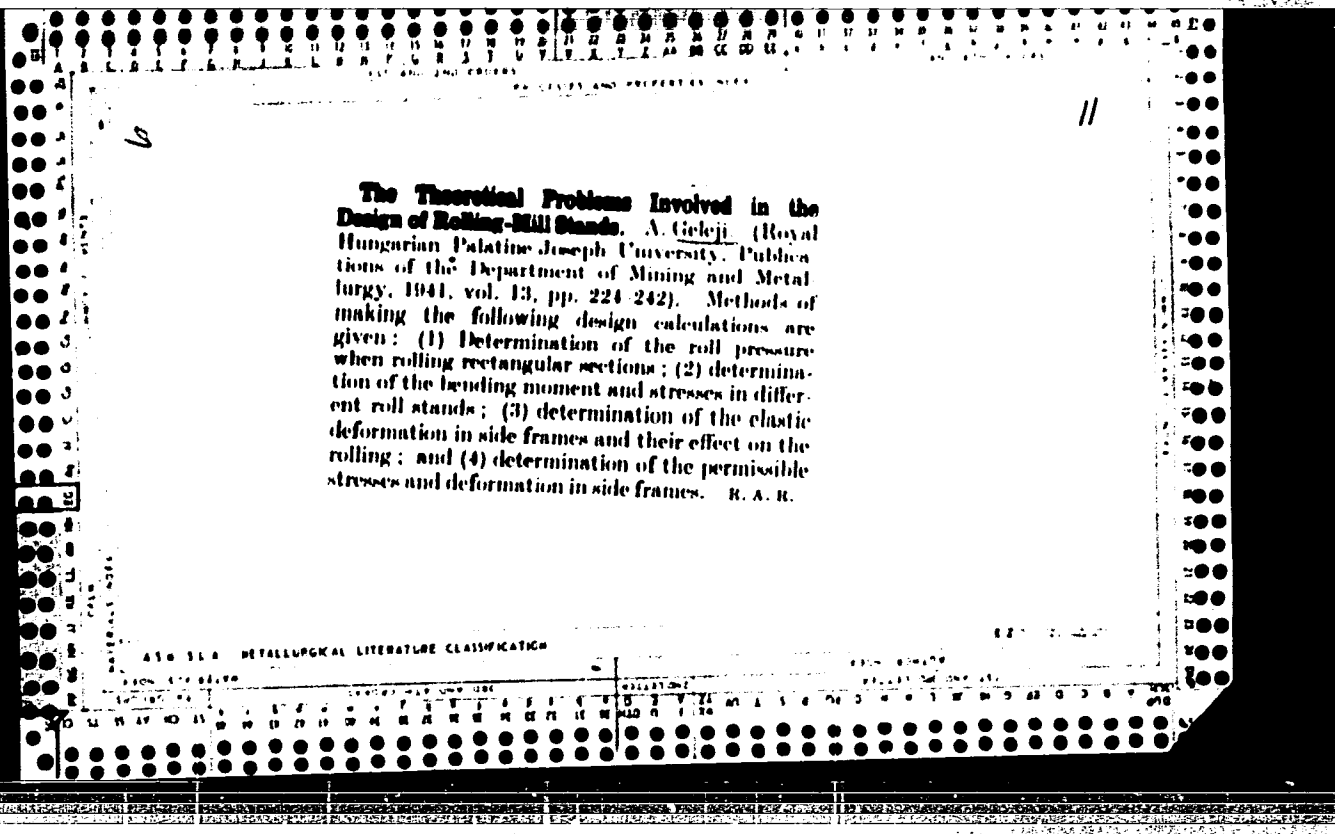
SCIENCE

Budapest, Hungary

So. East European Accession, Vol. 5, No. 5, May 1956



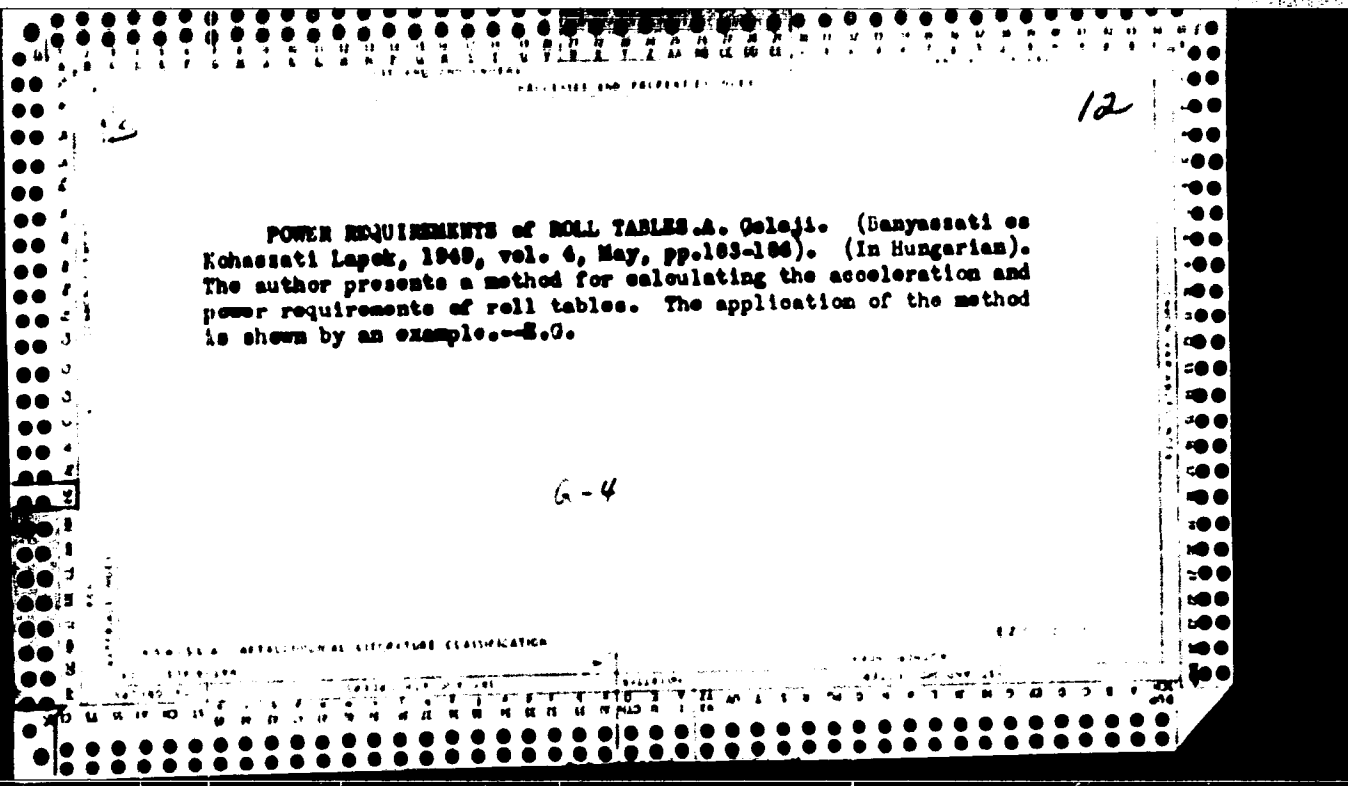


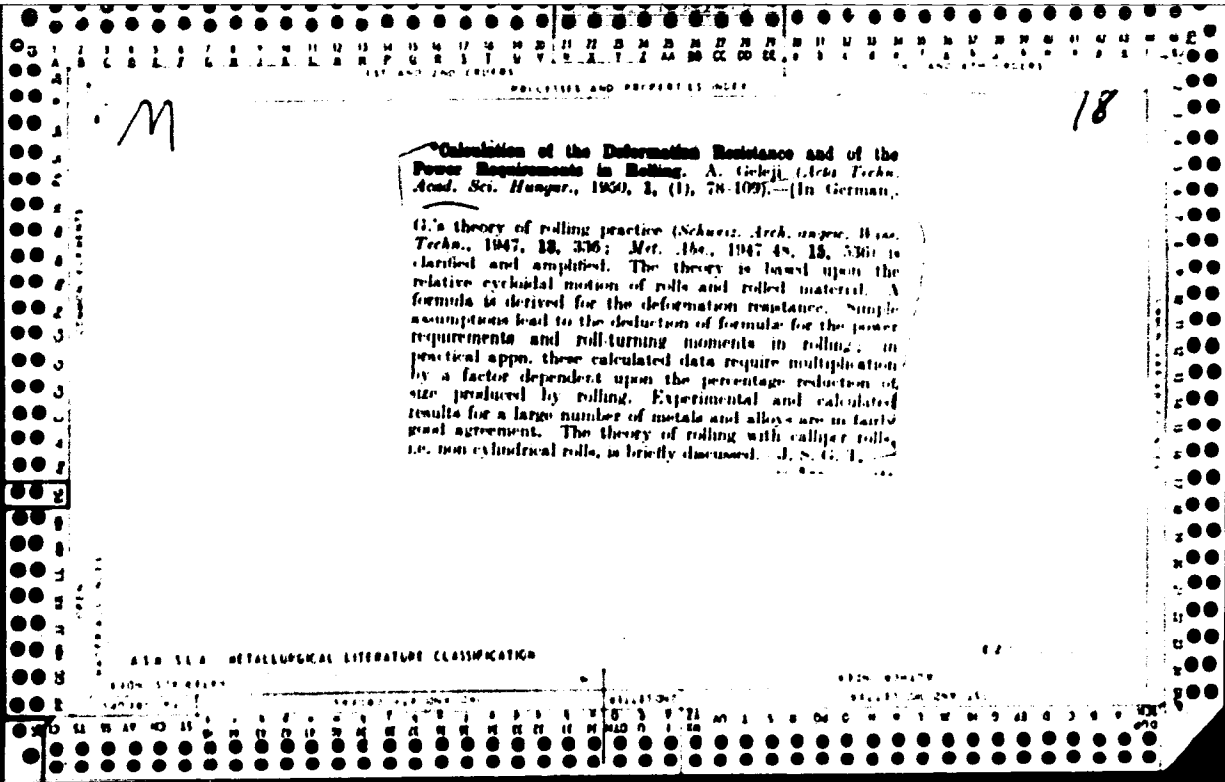


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Problems Relating to the Permanent Deformation of Rectangular Bars by Bending. A. Geleji, (Royal Hungarian Palatine-Joseph University, Publications of the Department of Mining and Metallurgy, 1943, vol. 15, pp. 225-245). A solution is offered to the problem of calculating the bending moment necessary to produce a given permanent deformation in a rectangular bar testing on two supports. Calculations of the power requirements of plate bending machines are also made. U. S. R.

USSR S.S.R. METALLURGICAL LITERATURE CLASSIFICATION





5

Forging, Stamping, Drawing, & Rolling

Duration and Efficiency of the Impact in Forging. A. Geleji. (*Acta Technica Academiae Scientiarum Hungaricae*, 1951, 2, 2, 208-217). [In German]. The kinetic energy of the hammer in forging is transformed on impact into useful work of plastic deformation and into losses associated with the elastic deformation and possibly vibrations of the base supporting the anvil. Three cases are analyzed: (1) A plastic mass is deformed by the simultaneous impact of two freely moving bodies which hit it axially from opposite directions; (2) the case in which the anvil is treated as a static elastic column of infinite length; and (3) the case in which the anvil is replaced by a flat-surfaced semi-infinite elastic medium. The duration of the impact is determined in each instance, and the energy dissipated in the base is calculated. From this the efficiency of energy transfer to the forged object is derived. - P. T.

GELE JI, H. JTR

V. 2, No 11, Nov. 1953

Metals - Smelting, Reduction, &
Refining

12482* Copper Refining in a Rotary Furnaces. (German.)
A. Czech and J. Schrey. Acta Technica Academiae Scientiarum
Hungaricae, v. 3, nos. 3-4, 1952, p. 393-425.
Compares advantages of short and long furnaces. Photographs,
micrographs, graphs, tables, diagrams. 15 ref.

Geleji, A.

IK

3, No. 11, Nov 1953

Metals - Secondary Working

12331* Extrusion and Punching Method. (German.) A.
Geleji. Acta Technica Academiae Scientiarum Hungaricae, v.
1-4, 1952, p. 275-282.
Presents theoretical analysis of structures and pressures. Mikro-
graphs, graphs, drawings. 13 tef.

97

CELEJI A

BTR

V. 2, Nov. 1953 (No. 11)

Metals - Primary Working

H

12521* Graphic Method for Design in Drawing Pipes.
(German.) A. Geleit and J. Scheer. *Acta Technica Academiae
Scientiarum Hungaricae*, v. 4, nos. 1-4, 1952, p. 347-361.
Presents a graphic method by which pipe dimensions and draw-
ing forces can be determined for each stage of the process.
Drawings, graphs, nomograms. 6 ref.

57

GELEJI, A.

"Effects of the Size of Rolls in the Cold Rolling of Metal Sheets and Strips"
p. 217, ACTA TECHNICA ACADEMIA SCIENTIARUM HUNGARICAE, Vol. 7, No. 1/2, 1953
(Budapest, Hungary).

SO: Monthly List of East European Accessions, L. C., Vol.2, No.11, Nov. 1953
Uncl.

(a) (e) (1)
3400. Grubis, A., Calculation of efforts and power demand in the Ekirhart process of making seamless pipe (in German), *Acta Techn. Hung. Budapest* 7, 3/4, 177-206, 1933.

The basic principle involved is one of indirect extrusion of a square billet of such size that it will slip into the round extrusion cylinder and will completely fill the space in the cylinder when the extrusion mandrel is forced into it. The force initially required to push the mandrel into the billet is calculated on the basis that the mandrel pressure is equal to the flow strength of the material. Subsequent reduction is obtained by rolling with the mandrel in place, or by drawing, in which the mandrel forces the extruded bloom through a series of dies.

The forces involved in these subsequent operations are calculated as a series of steps based on a consideration of three dimensional states of stress in the material as it passes through the rolls or dies. The conditions of flow are based on a constant flow stress k_f .

The total work calculated includes the work of deformation, the friction energy loss in the die, and the friction energy loss by slippage on the mandrel.

R. G. Sturm, USA

Pa

GELEJI, A.

"Power Demand of Rolling in Shape Passes." p. 203, Budapest, Vol. 3, No. 9, September 1954.
Lib. of Congress

GELEJI, A

✓ *Calculation of the Power Requirements for Rolling with Grooved Rolls. A. Geleji (*Acis Techn. Acad. Sci. USSR*, 1964, 9, (1/2), 205-212; in German). In continuation of previous work (*ibid.*, 1950, 1, 78; *M.A.*, 19, 155) G. develops a theory which enables the power requirements for rolling metals with grooved rolls to be deduced. The power requirement comprises two components: (a) that necessary for shaping the rolled material and (b) that necessary to overcome friction set up in the grooves. The former depends on the reduction, the resistance to shaping, and the speed of rolling; the latter depends on: (1) the relative velocity of gliding of the rolls on the material being rolled, (2) the coeff. of friction and the rolling pressure, and (3) the mean resistance to shaping. The average coeff. of friction in the groove is less than the friction coeff. in blooming or plate-rolling.
--J. S. G. T.

GELESI, F.

HUNG.

*Calculation of the Broadening and Forward-Slip Occurring in Rolling. A. Geleji (*Acta Techn. Acad. Sci. Hungar.*, 1954, 9, (3/4), 443-454). [In German]. A math. theory of the broadening and forward slip occurring in the rolling of test angular strips, between cylindrical rolls, is developed, and satisfactory agreement is found between theoretical and experimental results due to Siebel and Ekmann (Z. Met. Kaut. Ind., Eisenforsch., 1930, 12, 223) and to G. (Arch. Inst. 700' 1280 C. - J. S. G. T.

GELEJI, A.

"Polish Commemoration of the Work of Dr. Jozsef Jaky-Kossuth Prize Winner, Professor at the Technical University in Budapest, Member of the Hungarian Academy of Sciences", p. 458. (ACTA TECHNICA, Vol. 9, No. 3/4, 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions, (BEAL), 13, Vol. 4, No. 1, Jan. 1955, Uncl.

FELESI, A

Distr: 4E2c/4E2b(w)

Book—654, Csigi, A. Computation of forces and power in plastic forming. *Abwrtt* (Die Berechnung der Kräfte und des Arbeitsbedarfs bei der Formgebung im bildsamen Zustande der Metalle), 2nd revised and enlarged ed., Budapest, Akademiai Kiado, 1955, 415 pp.

Book is a revision of author's 1948 edition of the same title. The essential chapters are on various phases of rolling as well as drawing operations for rods, wires, and tubes, combination of cold-drawing and cold-rolling, extrusion and the heading and deep-drawing of sheetmetal. The comprehensive treatment of experimental results and design information is based on the 208 references listed in the text. Chapter I is a brief review of total strain theory which is used to establish the design equations found throughout the book. Although author states that the book is primarily for use by machine and tool designers, it is regrettable that he did not include the slipline solutions or incremental strain solutions of the many papers published during the past years on experimental and theoretical work in the field of plasticity.

82

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J. Fritch, USA

Adp

GELEJTA ~~1955~~

HUNG

9463* Power Requirement and Forming in Extrusion and Die-Forging. Kraftbedarf und Fließvorgänge beim Strangpressen und beim Pressen im Gesenk. (German.) A. Gelejtá. Acta Technica Academiae Scientiarum Hungaricae, v. 10, nos. 1-2, 1955, p. 187-220.
Verification of the theory of extrusion, formerly established by the author; calculation of forces developed in die-forging. Diagrams, graphs, photographs. 14 ref.

AA 101

GELEJI, A.

78. Determination of the forces required for the plastic deformation of aluminium and aluminium alloys. *Met* 1
~~Met~~ *Met* 1
~~Met~~ *Met* 1
I. Kabanov *Met* 1
Publ. Vol. 10 (88), 1955, No. 12, pp. 564-570, 20 figs, 1 tab.

The results obtained by computational methods established on the basis of the author's theory of plasticity have been subjected to comparison with his own tests and those conducted by Knieke, Lucas, Sachs, Bernhoft and Pearson. It was verified that the acting forces and deforming work could be established by calculations in all branches of plastic deforming processes occurring in practice for both aluminium and aluminium alloys as well. These calculations can be carried out with very good practical exactitude whenever sufficiently accurate data on the physical properties of the material subject to plastic deformation are available for substitution in the formulae. These properties are resistance to deformation, the friction factor and the specific work required for producing internal displacements of material referred to unit volume.

GELSI, A.

✓ Computation of Stresses arising in Foundations of Power Driven Forge Hammers in Operation. A. Gelsi and G. Dócányi, (*Acta Techn.*, 1958, 11, (1-2), 117-126; (in German). The paper is a further development of "Duration and Efficiency of the Thrust Process in Forging" published by the author (*Acta Techn.*, 1951, 1, 299-318, and deals with a new method of evaluating the stresses as a function of the design and mode of performance of the power hammers and their bases.—P. r.

MW

① JGP
LSP

GOLDF A.

MN
16
Forces Developed and the Power Demand for the Cold
Pilger-Rolling of Tubes. A. Gelell (*Acta Tech. Acad. Sci.*
Univ. Szeged, 1958, 11, (3/4), 467-476). [In German]. Math.
and graphical methods of calculating, with sufficient accuracy
for practical purposes, the forces developed and the power
requirements for the cold pilger-rolling of tubes (see Zaccaro,
Tekn. Tidskr., Byggnadsvesen., 1937, 67, 89) are developed.
A description of the process is given. 0 ref.—J. S. G. T.
DT *PH*

GELEJI, A. (Prof. Dr.)

Hungary

VIII. Berg- und Hüttenmännischer Tag in Freiberg

Die Berechnung des mittleren Verformungswiderstandes bzw. Walzdruckes beim Warm- und Kaltwalzen von quadratischen Stangen und blechförmigen Körpern.

80: Neur Hütte, September 1956, Unclassified.

GELEJI, A

53. A metal foil rolling mill drive with cascade-connected asynchronous motors (in German) V. URAY, A. Geleji. *Acta Technica Academiae Scientiarum Hungaricae*. Vol. 14, 1956, No. 3-4, pp. 463-476. 5 figs.

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Marked

The paper treats the electrical part of a metal foil rolling mill with cascade-connected asynchronous motors driving the rolls and the colling unit. This new

type of strip mill drive permits the elimination of costly and complicated automatic mechanisms retaining nevertheless all their advantages.

BZ 0008

SELENIUM and others.

Measurement and calculation of the rolling pressure and of the power demand on the pilger tube-rolling mill. In German. p. 205.
(Acta Technica. Vol. 15, no. 1/2, 1956, Hungary)

SO: Monthly List of East European Accessions (SEAL) LC, Vol. 6, no. 6, July 1957, Uncl.

GELEJI, A.

ACADEMIA SCIENTIARUM URSS
ACADEMIAE SCIENTIARUM URSS
VOL. 100, 1967

3

COMPUTATION OF THE MEAN DEFORMATION RESISTANCE AND OF THE ROLLING PRESSURE ARISING AT COLD AND HOT ROLLING OF SQUARE RODS AND SHEETS

MS & Struck

Prof. A. GELEJI
Member of the USSR Academy of Sciences

SUMMARY

The paper shows a method for computing the deformation resistance at hot and cold rolling. For computing the deformation resistance serves the formula

$$\sigma_{0.2} = k_f \cdot \left(1 + C \cdot \mu \cdot \left(\frac{l_0}{h} \right)^2 \right) \cdot \sigma_s \quad (1)$$

where the coefficient C depends at cold rolling as well as at hot rolling from the ratio $\left(\frac{l_0}{h} \right)$.

The function $C = f \left(\frac{l_0}{h} \right)$ has been determined empirically (Fig. 2).

At cold rolling the compressed gripping arc is increased by the flattening of the rolls. This flattening causes an increase of the rolling pressure and the deformation resistance. For computing the increased gripping arc serve formulae (11) and (12).

The practical range of usefulness and the precision of the method can be seen from the Tables.

These Tables permit also to draw valuable conclusions on the size and the variation of the coefficient of friction depending on rolling pressure and rolling speed.

16

Distr: 4E2c/4E2d(w)

199. New theory of rolling. (In German) A. G. G. I.
Acta Technica Academiae Scientiarum Hungaricae. Vol.
19, 1957, No. 1-2, pp. 199-243, 32 figs.

The most important theories of rolling (Kármán, Orowan and Mian) are dealt with briefly and critically. It is pointed out that these theories do not take into consideration the circumstances which produce the phenomena accompanying rolling (enlargement and forward slip) the key to the proper interpretation and determination of the forces arising in the rolling gap. The new theory explains the causes of enlargement and forward slip and at the same time points out the forces that must be considered in the determination of the resistance to deformation. The theory is briefly summarized in the following: At any point of the compressing surface of the rolls the resistance to forming in rolling consists in the total yield strength of the rolled material and in the compressive stress acting on the vertical cross section of the piece at the point in question. This compressive stress, acting in the direction of the axis of the rolled piece, consists of two components of different origin. One component derives from the fact that the frictional stresses arising in the rolling gap between the rolls and the piece produce, in the direction of the longitudinal axis of the piece, two compressive forces of opposite sign balancing each other in the neutral cross section. The other component of the compressive stress acting in the direction of the axis of the piece stems from the fact that when the column of material is compressed between the cross section of the entry section and the neutral section in the rolling gap, the side of this column of the material that coincides with the neutral cross section exerts pressure

on the part of the piece behind the neutral cross section, extruding it from between the rolls through the cross section of the exit at a velocity higher than the peripheral velocity of the rolls, that is, with a forward slip. All three compressive stresses attain their maxima in the neutral cross section. The surplus resistance to forming required for deforming the vertical cross sections in the rolling gap (for producing internal displacements of material) should be added to the resistance of deformation determined from the yield strength and the compressive forces acting in the direction of the longitudinal axis of the piece. The theory is valid for both hot and cold rolling.

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GELEJI, A.

Report on the operations of the Section of Technical Sciences of the Hungarian Academy of Sciences to the 1958 General Assembly of the Hungarian Academy of Sciences; also, remarks by A. Tarczy-Hornovh and others. p.111.

Magyar Tudományos Akademia. Muszaki Tudományok Osztálya. KÖZLEMÉNYEI. Budapest, Hungary. Vol. 23, no. 3/4, 1959.

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959
Uncl.

GELEJI, A.

Calculation of the rolling torque. In German. p.447.

ACTA TECHNICA. Budapest, Hungary. Vol. 24, no. 3/4, 1959.

Monthly List of East European Accessions (EEAI), LC. Vol. 8, No. 9, September 1959
Uncl.

18(5)
AUTHOR: Geleji, Aleksander, Professor, Doctor of Engineering
POL/39-26-3-4/13
TITLE: Moments and Power During the Rolling Process
PERIODICAL: Hutnik, 1959, Vol 26, Nr 3, pp 105-110 (Poland)
ABSTRACT: Calculations for determination of moment and power during rolling process are made. The term of the correction coefficient η which means the ratio between the measured and the calculated rolling moment is dealt with. Figures 1 and 2 show an exact diagram of the rolling process as well as of the power achieved by it, and the necessary dimensions for determination. The rolling power "L" can be determined by equations according to formula (16). The exchange into values of k_m (medium plastic resistance) is done by formula (17). By formula (11), the rolling moment is determined. From these equations results "F" (formula 12). Then the coefficient η is introduced (formulae 19, 20, 21). Known values for the factor "u" mentioning the references are shown in figure 3 (hot rolling aluminum 99.5%), in figure 4 (rolling

Card 1/3

Moments and Power During the Rolling Process POL/39-26-3-4/13

of five types of steel), and in figure 5 (various aluminum alloys and nickel-steel). Figure 6 shows the ratio that the medium value of η bears to the degree of deformation. From formulae 18, 18a, and 18b, different values for η can be taken for information. Further equations for the determination of the position of the partial (neutral) plane are given by the author. Figure 7 shows an exact scheme for better understanding of the determination. According to the author this determination is of special importance as the main problem in the rolling process is to reduce the plastic resistance. As can be seen from the calculation, the moment of the plastic resistance is before the neutral plane (equations 30 and 31), i.e. behind the neutral plane (equations 33 and 34). The summary moment is obtained by equation 35. the maximum value for the plastic resistance in the neutral plane by equations 38 and 39. According to the author the value of the factor η can be determined by equations 19 and 35 (see formulae 46 to 49).

Card 2/3



Moments and Power During the Rolling Process POL/39-26-3-4/13

There are 5 graphs, 2 diagrams and 6 German references.

ASSOCIATION: Czlonek Zwyczajny Węgierskiej Akademii Nauk Budapest
(Member of Academy of Sciences Budapest)

SUBMITTED: October 16, 1958



Card 3/3

OKLEJI, A., prof., dr., ing., Mitglied der Ungarischen Akademie der Wissenschaften

Calculating the force demand in the dies at press forging; Report No. 20 of the Working Community for Metallurgy of the Hungarian Academy of Sciences. Acta techn Hung 34 no.1/2:185-197 '61.

GELEJI, A., ord. Mitglied der Ungarischen Akademie der Wissenschaften
DEVENYI, G.; GULYAS, J.

Bar extrusion experiments. Acta techn Hung 44 no.3/4:437-445
'63.

1. Redakteur, "Acta Technica Academiae Scientiarum Hungaricae,"
(for Geleji).

L 31348-66 EWP(w) EM

ACC NR: AT6021141

SOURCE CODE: RU/2504/65/050/000/0069/0080

AUTHOR: Goleji, A.--Golei, A.

32

ORG: Working Group for Metallurgy, MFA

B+1

TITLE: Elastic-plastic bonding of circular rods *q*

SOURCE: Academia scientiarum hungaricae. Acta technica, v. 50, 1965, 69-80

TOPIC TAGS: bonding strength, metal bending, elasticity, plasticity

ABSTRACT: The technical literature lacks a detailed analysis of the elastic-plastic bending of rods with circular cross section. Studies were conducted to establish whether an exact numerical evaluation of the problems involved is feasible. It was found that great difficulties exist; however, it was possible to develop an approximating technique which permits the problems to be solved at an accuracy of $\pm 1-5\%$. The equations involved in this technique were derived and presented.

Orig. art. has: 6 figures and 52 formulas. [JPRS]

SUB CODE: 20, 13 / SUEM DATE: 07Oct63 / OTH REF: 004

Card 1/1 CC

PART I BOOK EXPLANATION 507/496

International symposium on macromolecular chemistry, Moscow, 1960.
 Reshchunovskiy simpozium po makromolekulyarnoy khimii, SSSR, Moskva, 10-18 Iyunya 1960 g. *Adressy i srucheyevy*. Sektziya II. (International Symposium on Macromolecular Chemistry Held in Moscow, June 10-18, 1960. Papers and Summaries) Section II. [Moscow, Izdatel'stvo SSSR, 1960] 559 p. 5,500 copies printed.
 Sponsoring Agency: The International Union of Pure and Applied Chemistry, Commission on Macromolecular Chemistry
 Tech. Ed.: S.A. Pruzhkov.

PURPOSE: This book is intended for chemists interested in polymerization reactions and the synthesis of high-molecular compounds.
CONTENT: This is Section II of a multivolume work containing papers on macromolecular chemistry. The papers in this section treat mainly the kinetics of various polymerization reactions initiated by different catalysts or induced by radiation. Among the research techniques discussed are electron paramagnetic resonance spectroscopy and light-scattering investigations. There are summaries in English, French and Russian. No formalities are mentioned. References follow each article.

СЕРИЯ I.A. and I.A. BING (USSR). Processes of Polymerization and Grafting on Newly Formed Surfaces 460
 Voloshina, A.V., G.I. Pukhovskiy, S.M. Shurkov, and A.E. Bostel'man (USSR). The Polymerization Process in the Solid Phase 465
 Golell, P., A. Stachur, Z. Holý, and F. Štollár (Czechy). Mechanism of the Polymerization of γ -Caprolactam in the Presence of Phosphoric Acid 467
 Charkunovich, S., B. Orszanski, and Wlodarczyk (Poland). Polymerization of Caprolactam, Epsilon-caprolactone and Caprylactam in the Presence of Their Sodium Salts in Nonpolar Solvents With Carbon Dioxide as an Activator 477
 Vassco-Smeredevski, L.F. Vassco-Smeredevski and B. Mahny-Baki (Hungary). Investigation of Kinetically Stable Isomerization During the Polymerization of Different Olefins 504
 Leasch, E., and J. Christenhorst (Poland). Kinetics of the Polymerization of Dimethylsiloxane 521
 Rytovskiy, P., Mikh, and B. Sedláček (Czechoslovakia). Use of the Extrapolation Method in Computing Data on Light-Scattering for the Case of Continuous Constant Observation of Polymerization in Particles 544

AVAILABLE: Library of Congress
 VINITI, Moscow

Безлер, S. Ye., N. I. Kozlovskiy, L. Ye. Podybnyy, and S. Kh. Khamat (USSR). Study of the Kinetics of the Mechanism of Polymerization Under the Action of Organic Catalysts 372
 Tsvetkov, I.M., L. Ye. Maslov, E. I. Buzareva, and N. G. Zhurav (USSR). Stereospecificity and the Optical Properties of Polymers 376
 Kuznetsov, S. M., Ye. Ye. Golik, and G. B. Pechenkin (USSR). The Kinetics of Polymers and Methods of Study 388
 Akhmedov, A. P., Shermatov, S. F. Jalilov, and L. P. Makhlova (USSR). On Carbonium and Carbocation Polymerization Mechanisms Under the Effects of Gamma Radiation 410
 Kargin, I. A., and V. A. Kabanov (USSR). Polymerization Processes in Insoluble Molecular Dispersions 455
 Kuchafskiy, I. M., and Y. D. K. (Czechoslovakia). Kinetics of the Polymerization of Formaldehyde 473
 Vesely, J. (Czechoslovakia). On the Mechanism of Ionic Polymerization 485
 Kisek, Z., and A. Kralik (Czechoslovakia). On the Role of Tertiary Compounds in the Cationic Polymerization of Isobutylene 472 45

Geleji, F.

✓ 78. Mechanism of copolymerization of butadiene
 with styrene in the presence of redox systems.
 Geleji and O. Tóvimb. *Vegyipari Kut. Int. Kif.*
 1954, 4, 211-6; *Ref. Zhur. Khim.*, 1956, abe. 2262e.
 In Hungarian. Using polarographic and conduc-
 tometric methods, the authors investigated the re-
 actions taking place during the "maturing" of a
 solution containing ions Fe^{3+} and $P_2O_7^{4-}$ which is
 used as an activator in redox systems containing
 sugar. At 60°C the maximum quantity of Fe^{3+}
 (3/4) gives rise to an iron-pyrophosphate complex.
 As required by theory, the rate of formation of the
 complex increases with temperature. Hydrolysis of
 the pyrophosphate ions was not observed.

Metals

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GELEJI, Frigyes

Present situation of the manufacture of synthetic fibers and the trend of its development. Magyar Keményipari Lap 15 no.4:149-156 Ag '60.

1. Szervesvegyipari és Muanyagipari Kutató Intézet.

GELEJI, Frigyes; LEVAI, Gyula; MIGRAY, Emod

Castor oil as a raw material of the chemical industry. Magyar Kem
lap 15 no.7:298-303 J1 '60.

1. Szerves Vegyipari es Muanyagipari Kutato Intezet.

GELEJI, Frigyes

What is the cause for the characteristic rustling and sticking of nylon underclothes? How can it be stopped? Elet tud 15 no.39:1218 25 S '60.

1. Muanyagipari Kutatointezet munkatarsa.

GELEJI, Frigyes

The "well-combed" molecules. Elet tud 17 no.30:935-938 29 J1
'62.

GELEJI, Frigyes

What is the advantageous property of "Terylene" plastic?
Elet tud 15 no.14:418 3 Ap '60.

1. Muanyagipari Kutato Intezet osztalyvezetoje.

KOVACS, Laszlo; GELEJI, Frigyes

Polyamide sieve fabric-coated filter pipes. Hidrológiai közlöny
40 no.1:54-57 F '60.

GELEJI, Frigyes

Plastic foils. Elet tud 16 no.44:1395-1398 29 0 '61.

GDOR, Gezane; GELEJI, Frigyes

Copolymerization of polyacrylonitrile fibers by the method of preliminary radiation with ^{60}Co , Magyar kemiai lap 17 no.5:221-226 My '62.

1. Muanyagipari Kutato Intezet, Budapest.

HOLLY, Sandorne; GELEJI, Frigyes

Synthesis and investigation of modified polyesters. *Magy kem lap*
18 no.7:324-327 J1 '63.

1. Muanyagipari Kutato Intezet.

GELEJI, Frigyes

Multi-purpose plastic materials. Elet tud 18 no.37:1175-1178
15 S '63.

GELEJI, Frigyes; DUTKA, Gyorgy

Fiber formation from polypropylene. *Magy textil* 15 no.11:
506-507 '63.

1. Muanyagipari Kutato Intezet.

GELEJI, Frygyes; SZABO, Karoly; ODOR, Gezane

Possibilities for changing the properties of polypropylene fibers. Magy textil 17 no.2:64-66 F '65.

1. Research Institute of the Plastics Industry, Budapest.

ODOR, Gezane; GELEJI, Frigyes

Improving the colorability of polypropylene fibers by exposing them to radiation. Magy textil 17 no.3:121-123 Mr '65.

1. Research Institute of the Plastics Industry, Budapest.

Handwritten notes:
Theory of forming
and alloying
24

007. S. Golev, "Pressing of L- and U-profiles from sheet" (in English), *Publ. Akad. Nauk. Bulg. Rep. (Mechanics Sect.)*, 1967, no. 1, pp. 14-24.

In this paper the author develops a theory for the forces required to form sheet metal into bent angles or U-shapes.

After taking exception to the accuracy of Schuber's formula for the required bending force, formulas are presented for the bending moments, portion of thickness subjected to elastic deformation, formed radius, total forming load required, etc. Experimental data are presented in chart form and compared to theoretical curves.

E. A. Wittenham, Jr., USA

5

THE CALCULATION OF THE POWER REQUIREMENTS OF ROLLING MILLS. S. Goleji.
 (Banyaszati es kohassati Lapok, 1948, vol. 3, Dec. 15, pp. 315-318). (in
 Hungarian). Formulae are derived for calculating the power required in rolling
 mills when rolling square, oval, and round sections. The formulae given in
 this paper are based on an equation developed in a previous paper by the
 author (see Journ. I, and S.I., 1948, vol. 160, Oct, p. 225). The values
 obtained by calculation were in good agreement with results obtained experi-
 mentally in a case which is cited. E.O.

G-4

AND U.S.A. METALLURGICAL LITERATURE CLASSIFICATION

CLASSIFICATION	INDEXING
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

GELEJI, SANDOR.

Aluminum handbook; course materials. illus., maps, bibl., tables (part fold.)
(Mernoki Tovabbkepzo Intezet, 1949. 687 p. Budapest)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

BA

4

Calculation of power requirements of rolling mills. In *United States Steel Corp. Report*, 1944, p. 215-216; *J. Iron Steel Inst.*, 1944, 215, 216. — Formulas for calculating the power required when rolling square, oval, and round sections are derived. Calc. and experimental values are in good agreement. R. H. CLARK.

GELEJI, Sandor

Kohogéptan [Foundry machinery] Budapest, Tankönyvkiado, 1950. 478 p. diags.,
tables. Bibliography: p. [471]-473.

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12

Development Trends in the Rolling of Steel. S. Geleji, (banyaszati es Koveztasi Lapok, 1950, vol. 5, Feb.-Mar., pp. 203-215). [In Hungarian]. This is a general paper on modern rolling-mill practice. Increase of the efficiency of rolling mills, mechanization, and quality improvement are discussed. It is emphasized that the present tendency is to replace individual, separately controlled stands by roll trains which are centrally controlled. Particular attention is paid to methods applicable for production on a relatively small scale. In the discussion G. Letmayer pointed out that it would be advantageous to apply continuous cold-rolling stands for producing thin sheets and transformer sheets; information on these stands is given.--- G.

G-4

METALLURGICAL LITERATURE CLASSIFICATION

METALLURGICAL LITERATURE CLASSIFICATION		COLLECTION	
YEAR	CLASSIFICATION	NO.	DATE
1950	621.772.01	1	1950
1951	621.772.01	2	1951
1952	621.772.01	3	1952
1953	621.772.01	4	1953
1954	621.772.01	5	1954
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2018	621.772.01	69	2018
2019	621.772.01	70	2019
2020	621.772.01	71	2020
2021	621.772.01	72	2021
2022	621.772.01	73	2022
2023	621.772.01	74	2023
2024	621.772.01	75	2024
2025	621.772.01	76	2025
2026	621.772.01	77	2026
2027	621.772.01	78	2027
2028	621.772.01	79	2028
2029	621.772.01	80	2029
2030	621.772.01	81	2030
2031	621.772.01	82	2031
2032	621.772.01	83	2032
2033	621.772.01	84	2033
2034	621.772.01	85	2034
2035	621.772.01	86	2035
2036	621.772.01	87	2036
2037	621.772.01	88	2037
2038	621.772.01	89	2038
2039	621.772.01	90	2039
2040	621.772.01	91	2040
2041	621.772.01	92	2041
2042	621.772.01	93	2042
2043	621.772.01	94	2043
2044	621.772.01	95	2044
2045	621.772.01	96	2045
2046	621.772.01	97	2046
2047	621.772.01	98	2047
2048	621.772.01	99	2048
2049	621.772.01	100	2049

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68. The effect of the diameter of rolls on the cold rolling of metal sheets and strips (In German) S. Gekop (Acta Technica Academiae Scientiarum Hungaricae Vol 7, 1953, No. 1-2, pp. 217-223, 4 figs)

It has been proven in the practice of sheet rolling that the smaller the diameter of the work rolls the less resistance is encountered in rolling. This is explained by the fact that smaller diameter rolls undergo less flattening than large diameter rolls. The degree of flattening depends on the rolling pressure, i.e. on the resistance to forming in the gap between the rolls. On the other hand, the longer the arc of contact the greater the resistance to forming, however, with identical reductions in the thickness the smaller the diameter of the rolls the shorter the arcs of contact. With flattening rolls both the length of the arc of contact and the resistance to forming increase. The degree of flattening and thus the arc of contact may be calculated by the formula of the resistance to forming and by the *Hertz* formula for the flattening of rolls pressed against each other. With the help of the thus determined arc of contact the resistance to forming and the pressure of rolling can be computed with adequate precision for the rolling of thin sheets.

S. G.

GELEJI, S.

GELEJI, S. Determination of needs for power and performance in making pipe by the Farhardt method. n. 205.

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SO: Monthly List of East European Accessions, (FEAL), LC, Vol. 5, No. 3, March, 1956