ARKO, P.

"Program of Forging Enterprises Depends Upon Equipment", P. 24, (KOHASZATI LAPOK, Vol. 9, No. 1, January 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 4, No. 3, March 1955, Uncl.

ARKOS, F.

Semicontinuous casting or semicontinuous roller casting. p. 4. KOHASZATI LAPOK. (Magyar Banyaszati es Kohaszati Egyesulet) Budapest. Vol. 10, no. 1, Jan. 1955.

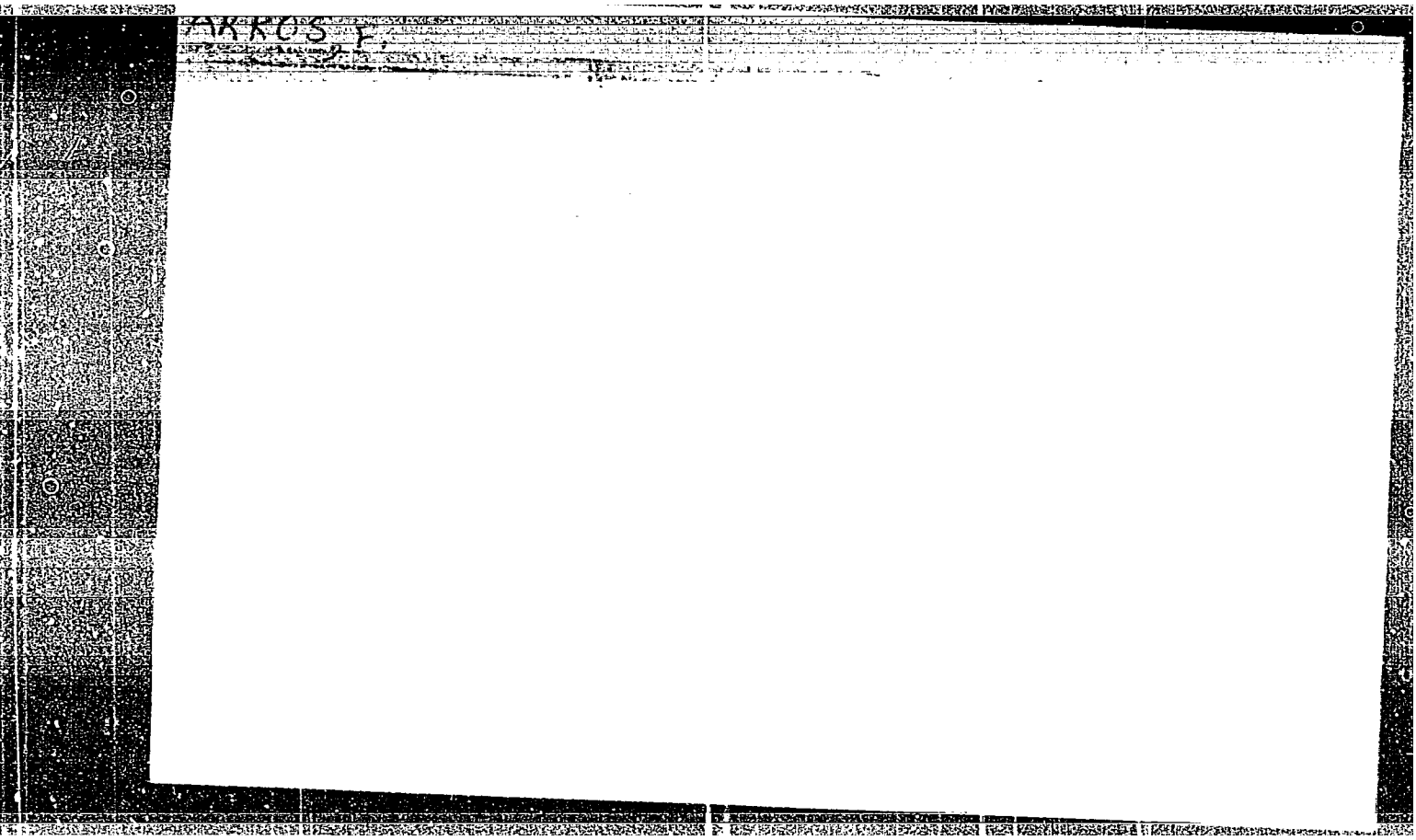
SOURCE: East European Accessions List (EEAL), Library of Congress Vol. 5, no. 6, June 1956

ARKOS FRIGYES

14239* What to Do About Negative Tolerance? Mit tegyünk a negatív tűrésért? (Hungarian.) Frigyes Árkos. *Kohászati Lapok*, v. 10, no. 7, July 1955, p. 250-255.

Problems of tolerance in rolled steel production. Factors determining the range of tolerance including temperature, and condition of the rolls. Diagrams, graphs.

MG



APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000102110020-4"

ARKOS, F.

Making programs for mettallurgy by means of business machines. p. 391 (Kohaszati Lapok Budapest Vol. 11, no. 9, Sept. 1956 Kohaszati Lapok. Vol. 11, no. 9)

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

ARKOS, F.

Evolution of continuous casting.

P. 234. (KOHASZATI LAPOK) Vol. 12, no. 6, June 1957
Budapest, Hungary

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 3, March 1958

ARKOS, F.

Distr: 4E2c

122. A brief description of the Danube Ironworks. F. Arkos. *Kohászati Lapok*. Vol. 12(90), 1957, No. 8—9, pp. 332—330

Construction was started during the first Five Year Plan. Production at the Ironworks is based upon the coal supplied by the *Pécs* coal basin and upon imported iron ore shipped *via* the Danube. Construction is being executed in two stages. The plants finished in the first will produce 70,000 t of pig iron, 50,000 t of ingots, 50,000—120,000 t of slabs and billets, 100,000 t of plates and light plates, 40,000 t of cold-rolled sheets, 40,000 t of galvanized sheets and 7000 t of tin-plated steel sheets. The plan of production for the second stage has not yet been definitely established, however raw steel production will be increased to 1—1.1 million t. The combine constitutes a self-contained production and power supply unit of which the coking plant and the ironworks are the principal parts. The coking plant includes the coal preparation plant, coal washery, the coking plant proper and a chemical plant for treating the bye-products. The ironworks includes the ore dressing and agglomerating plant, the open-hearth furnaces and the rolling mill. The Ironworks is provided with a firebrick factory, limestone and dolomite kilns, iron and steel foundry, oxygen plant and repair shops. The Ironworks has its own port on the Danube as well as a power station, pumping station and air compressor station. Blast furnace slag is utilized, the bye-products of coal washing are used for producing steam at the power station, boilers, open-hearth furnaces are heated with coke and blast-furnace gas, steam is produced with the top gases of the open-hearth furnaces. The blast furnaces have a capacity of 700 cu.m each, producing 280,000 t of pig yearly. They are equipped with turbo blower and a pig machine. Ancillary equipment is fully automated. Molten pig is stored in mixers for use in the open-hearth furnaces of 125 t capacity each. There are two blast furnaces in operation, space for three more has been ensured. In the building accommodating four open-hearth furnaces three are already operative, an area is reserved for a building to contain five more open-hearth furnaces. The hot-rolling mill will consist of a semicontinuous train for 1.8—12 mm thick and 650—1500 mm broad sheet strips, and of a continuous train composed of a vertical and horizontal two-high reversing train and five four-high stands rolling 8—50 mm thick and 3000 mm broad plates. In the cold-rolling mill 1.8—4 mm thick reeled strips will be processed into 0.22—1.8 mm thick sheets and strips on a continuous train of four-high stands fitted with pickling, leveling, slitting, galvanizing and tinplating equipment.

ARKOS, Frigyes

Dr. Bela Vecsey at 80. Koh lap 95 no.10:435 O '62.

1. "Kohaszati Lapok" foszerkesztoje.

KUTAS, Andor; ARKOS, Frigyes

Technical and economic news. Koh lap 93 no.1:45 Ja '60.

1. "Kohaszati Lapok" rovatvezetoje es szerkeszto bizottsagi tagja (for Kutas). 2. "Kohaszati Lapok" foszerkesztoje (for Arkos).

ARKOS, Frigyes

Periodical review. Koh lap 93 no.1:44 Ja '60.

1. "Kohaszati Lapok" foszerkesztoje.

KUTAS, Andor; ARKOS, Frigyes; PACZOLAY

Technical and economic news. Koh lap 93 no.4:189-190 Ap '60.

1. "Kohaszati Lapok" rovatvezetoje es szerkeszto bizottsagi tagja (for Kutas). 2. "Kohaszati Lapok" fozserkesztoje (for Arkos).

KUTAS, Andor; ARKOS, Frigyes

Technical and economic news. Koh lap 93 no.5:234 My '60.

1. "Kohaszati Lapok" rovatvezetoje es szerkeszto bizottsagi tagja (for Kutas). 2. "Kohaszati Lapok" foszerkesztoje (for Arkos).

KAJTAR, Istvanne; ARKOS, Frigyes; NAGY, Zoltan

Technical and economic news. Koh lap 93 no.6:282 Je '60.

1. "Kohaszati Lapok" szerkeszto bizottsagi tagja (for Nagy).
2. "Kohaszati Lapok" foszerkesztoje (for Arkos).

ARKOS, Frigyes; DOMONY, Andras, dr.

Periodical reviews. Koh lap 93 no.11:526-527 N '60.

1. "Kohaszati Lapok" foszerkesztoje (for Arkos). 2. "Kohaszati Lapok" szerkeszto bizottsagi tagja (for Domony).

KUTAS, Andor; ARKOS, Frigyes

Technical and economic news. Koh lap 93 no.11:489 N '60.

1. "Kohaszati Lapok" rovatvezetoje es szerkeszto bizottsagi tagja (for Kutas). 2. "Kohaszati Lapok" foszerkesztoje (for Arkos).

PITTER, Pal; ARKOS, Frigyes; HORVATH, Antal; DOMONY, Andras, dr.; LEVARDI, Ferenc, dr.; SELMECI, Bela; FEKETE, Sandor; MARTOS, Ferenc, dr.; MACSAY, Jozsef, okleveles gepeszmernok; TARCZY-HORNOCH, Antal, dr., akademikus, egyetemi tanar; GAGYI PALFFY, Andras, dr.; KICSINDI, Janos, okleveles kohomernok; HEINRICH, Jozsef, okleveles banyamernok

The 1963 general meeting of the Hungarian Association for Mining and Metallurgy. Koh lap 96 no. 6:241-264 Je '63.

1. Chairman, Division of Iron Metallurgy, Hungarian Association for Mining and Metallurgy (for Pitter). 2. Editor-in-Chief, "Kohaszati Lapok" (for Arkos). 3. Secretary, Division of Metallurgy, Hungarian Association for Mining and Metallurgy (for Horvath). 4. Editorial board member, "Kohaszati Lapok" (for Domony). 5. President, Hungarian Association for Mining and Metallurgy (for Levardi). 6. Secretary General, Hungarian Association for Mining and Metallurgy (for Selmeci). 7. Head, Auditing Commission, Hungarian Association for Mining and Metallurgy (for Fekete). 8. Head, Medal Commission, Hungarian Association for Mining and Metallurgy (for Martos). 9. Ozd Metallurgical Works, Ozd (for Macsay). 10. Esztergom Machine Tool Factory, Esztergom (for Kicsindi).

ARKOS, Frigyes

Society news. Koh lap 97 no.4:178 Ap'64

1. "Kohaszati Lapok" foszerkesztoje.

ARKOS, Frigyes, EMBER, Kalman, dr.

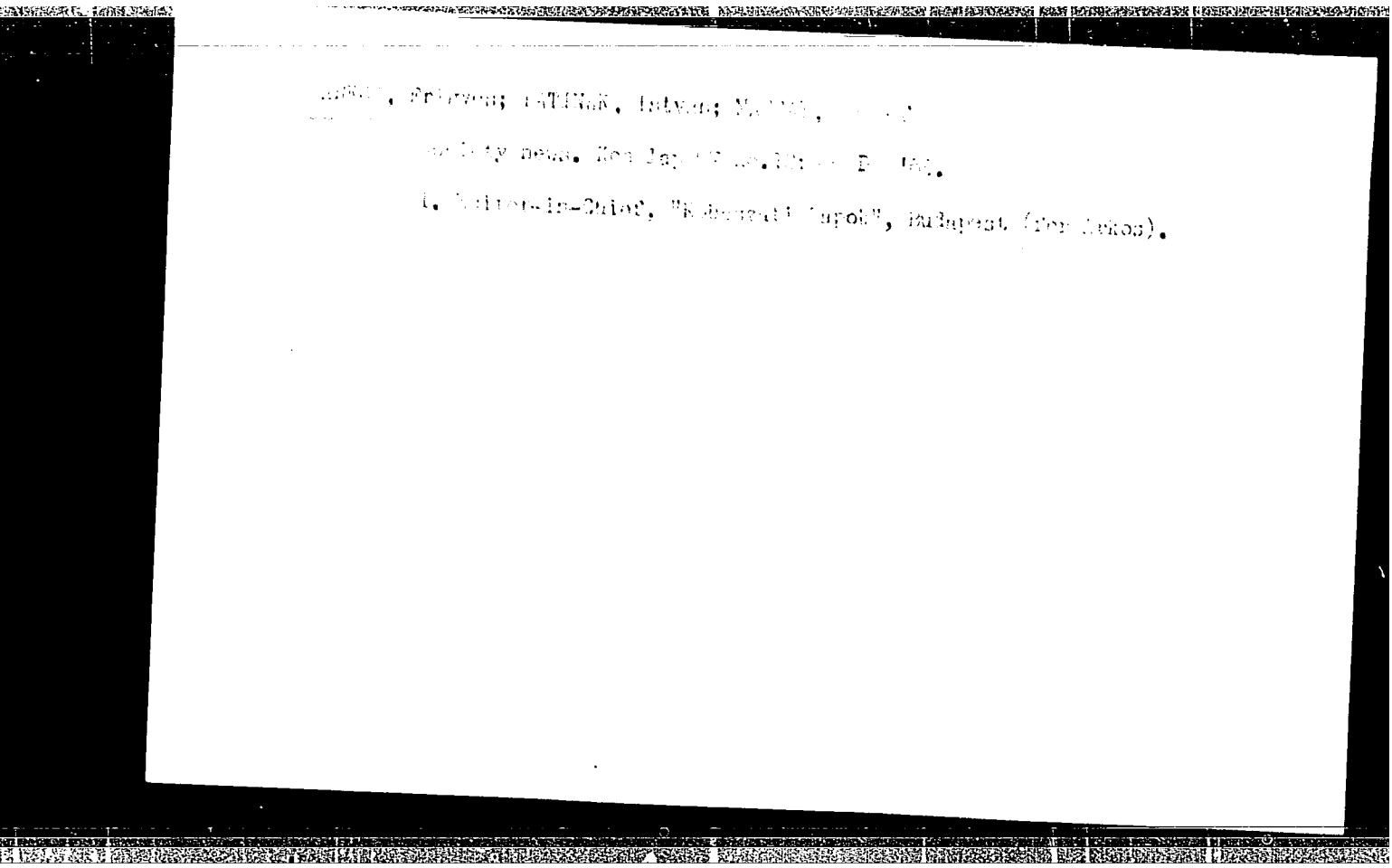
Executive Committee session of the Hungarian National Mining and Metallurgical Society. Koh Lap 97 no. 2:57-64 F '64.

1. Editor-in-Chief, "Kohaszati Lapok", Budapest (for Arkos).
2. Vice-President, Hungarian Association of Mining and Metallurgy (for Ember).

NAGY, Jozsef; ARKOS, Fr[illegible]yes; NAHOCZKY, Alfons, [illegible].; LATINAK, Istvan

Society news. Koh lap 97 no.7:315 Jl '64.

1. Chief Editor, "Kohaszati Lapok" (for Arkos).



LEVARDI, Ferenc, dr.; ARKOS, Frigyes

An account of the Executive Committee session of the National Hungarian Mining and Metallurgic Society held on November 27, 1964. Koh lap 98 no.2;49-59 F '65.

1. President, National Hungarian Mining and Metallurgic Society, and Minister of Heavy Industry, Budapest (for Levardi). 2. Chief Editor, "Kohaszati Lapok" (for Arkos).

NAGY, Jozsef; LATINAK, Istvan; TOMPE, Laszlo; ARKOS, Frigyes

Association news. Koh lap 98 no,3:105,113 Mr '65.

1. Editor-in-Chief, "Kohaszati Lapok", Budapest (for Arkos).

ARKOS, Frigyes

Associations news. Koh lap [illegible]

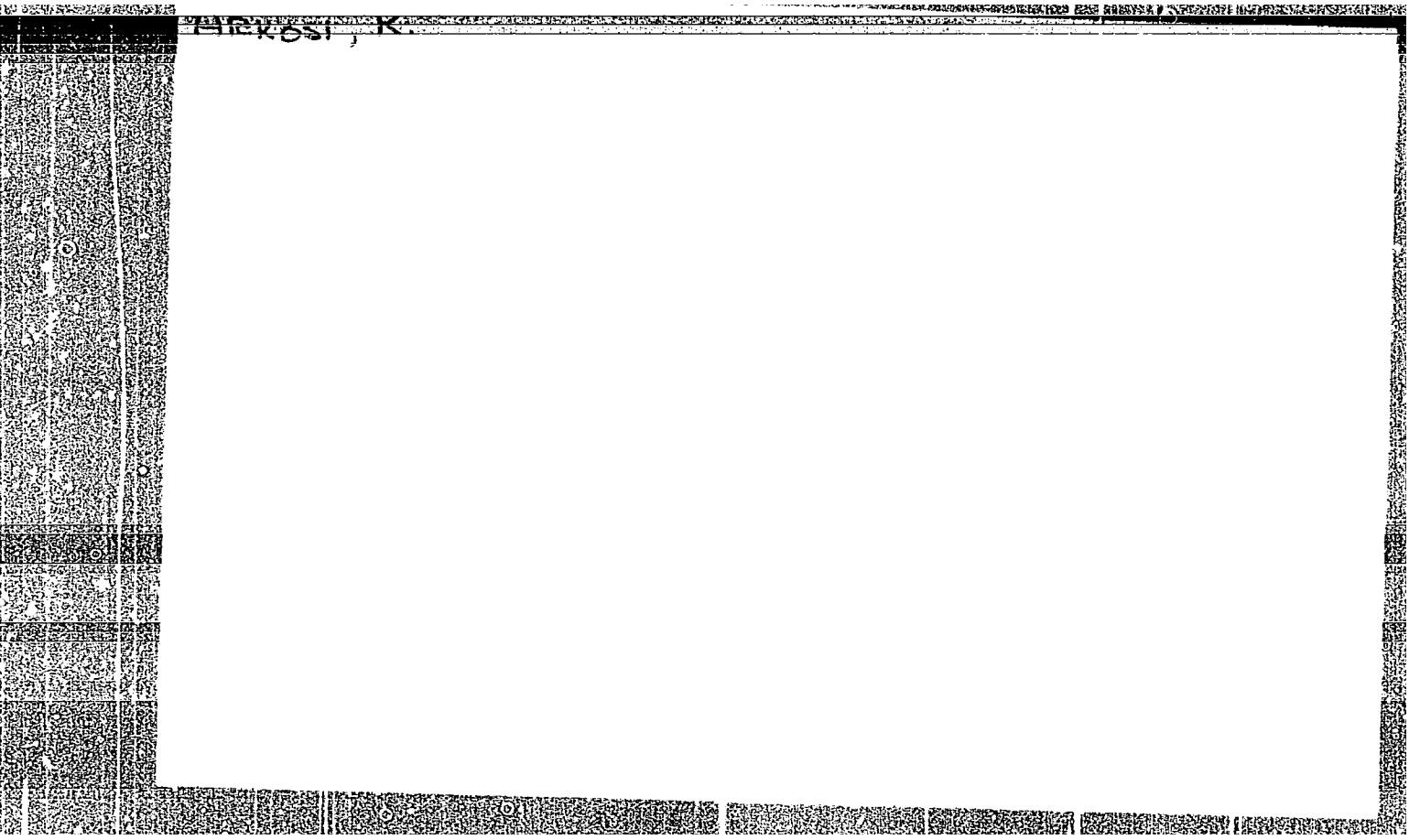
1. Editor-in-Chief, "Kohaszati Lapok", Budapest.

ARKOS, Frigyes

"Huzotuske 1964." Reviewed by Frigyes Arkos. Koh lap 98 no.3: 141 Mr '65.

"Cold-drawn sectional steels. Reviewed by Fryges Arkos. Ibid.:142

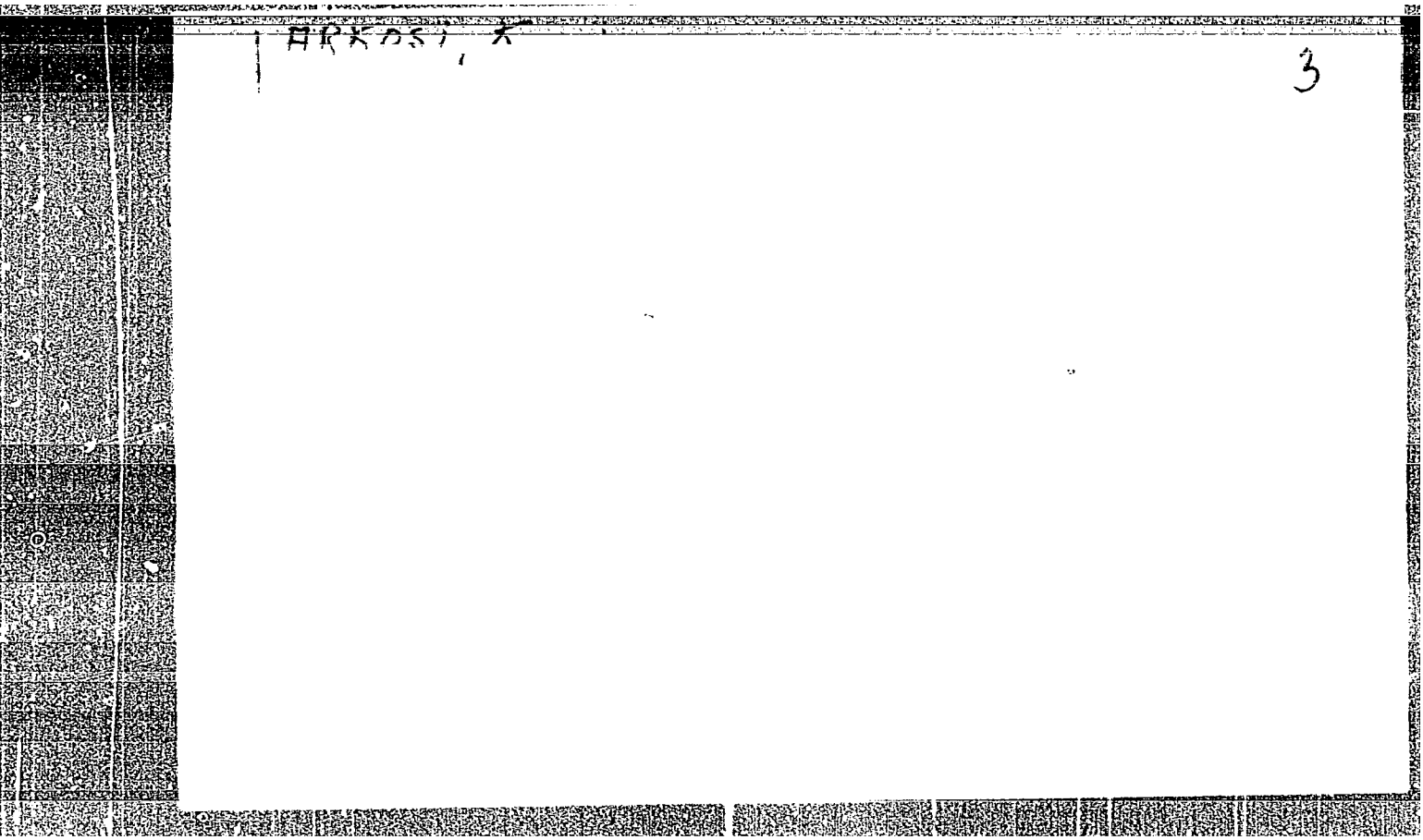
1. Editor-in-Chief, "Kohaszati Lapok."



ARKOSI, K.

Jour. of the Amer. Ceramic Soc. Vol. 37 No. 3 March 1954 Kilns, Furnaces, Fuels, and Combustion

Results of electron microscope investigation of Hungarian bentonites and a halloysite sample from Felnémet. K. Árkosi and J. Barna. *Acta Tech. Acad. Sci. Hung.*, 7 [1-2] 71-88 (1953) (in English).—Under the electron microscope the minerals show a lamellar fluffy structure. 15 photos. Cf. *Ceram. Abstr.*, 1954, Jan., p. 17*j*. M.Ha.



HUNGARY/Solid State Physics - Crystal Morphology E-8

Abs Jour : Ref Zhur - Fizika, No 1, 1959, No 976

Author : Arkosi K., Morlin Z.
Inst : Institute of Measurement Techniques and Instrument Construction, Hungarian Academy, Technical University for the Building Industry, Budapest, Hungary
Title : Electron Microscopic Investigation of Crystals of NaCl.

Orig Pub : Acta phys. Acad. sci. hung., 1957, 8, No 1-2, 129-146

Abstract : An investigation is made of the surfaces of synthetic and natural crystals of NaCl. The latter ones (from Wieliczki, Polnad) have relatively few defects, which evidences a slow rate of growth. Synthetic crystals, obtained in the crystallization from a rapidly-cooling melt, consist of individual blocks with a large number of defects. The surface structures of natural crystals, after they have been deformed by bending, are very similar to the structures of their synthetic analogues. The growth figures on the surface of the plates, obtained as a result of recrystallization of NaCl

Card : 1/2

ARKOSI, K.

TECHNOLOGY

PERIODICAL: MERES ES AUTOMATIKA, Vol. 6, no. 7/8, 1958

Arkosi, K. Use of replica technique in electronmicroscopic work. p. 221.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 2, February 1959, Unclass.

ARKOSI, K.

SCIENCE

PERIODICALS: ~~ACTA ZOOLOGICA.~~ Vol. 64, No. 7/8 July/Aug. 1958

MAGYAR KEMIAI FOLYOIRAT

Arkosi, K. Artificial products occurring during the investigations by electron microscope in inorganic compounds. p. 265.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 2, February 1959, Unclass.

COUNTRY : HUNGARY
CATEGORY : Chemical Technology. Chemical Products and Their Applications. Ceramics. Glass. Binding*
ABS. JOUR. : RZKhim., No. 23 1959, No. 82904

AUTHOR : Arkosi, K.; Barna, J.
INST. : -
TITLE : Study of Hungarian Kaolins with the Aid of Electron Microscope

ORIG. PUB. : Epitoanyag, 1959, 11, No 1-2, 32-33

ABSTRACT : No abstract.

*Materials. Concrete.

CARD: 1/1

H - 40

Arkosi, K.

Electron-microscopic investigation of natural hydraulic binding materials.
p. 283

EPITOANYAG. (Epitoanyagipari Tudomanyos Egyesulet)
Budapest, Hungary. Vol. 11, no.8, August 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no.11
November 1959
Uncl.

IBRANYI DEZSONE, ARKOSI, Klara

Report on my study trip to Paris. Kem tud kozl MTA 20 no.2:272-276 '63.

1. Magyar Tudomanyos Akademia Kemiai-Szerkezeti Kutato Laboratoriuma, Budapest.

L 11157-66 EWT(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b) JD

ACC NR: AP6000356 SOURCE CODE: UR/0286/65/000/021/0049/0049

AUTHORS: Prosvirov, N. T.; Gedberg, M. G.; Aderikhin, A. S.; Salimon, V. S.; Ar'kov, V. G.; Mel'nikov, M. P.; Kozak, N. N.

ORG: none

TITLE: Modified high speed steel. Class 40, No. 176071 [announced by Volgograd Scientific Research Institute of Machine Construction Technology (Volgogradskiy nauchno-issledovatel'skiy institut tekhnologii mashinostroyeniya)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 49

TOPIC TAGS: steel, carbon, chromium, tungsten, vanadium, titanium, nitrogen, manganese, carbon steel, alloy steel

ABSTRACT: This Author Certificate presents a modified high speed steel containing carbon, chromium, tungsten, vanadium, and nitrogen. To increase its cutting ability, the steel has the following composition (in %): carbon 0.85—1.0; chromium 4.0—5.0; tungsten 9.0—10.5; vanadium 2.2—2.4; titanium 0.25—0.30; nitrogen 0.09—0.13; manganese 1.2—2.0.

SUB CODE: 11/ SUBM DATE: 04Feb63

Card 1/1 UDC: 669.14.018.252—3

ARKOSI, L. : BATTA, J.

"Results of Electron-Microscope Investigation of Hungarian Bentonites and a Halloysite Sample from Felnemet", In English. P. 71. (ACTA TECHNICA, Vol. 7, No. 1, 1953, Budapest, Hungary)

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

HUNGARY

Mme ARKOSI-UDVARDY, Sarolta, of the Pediatro-Psychological Institute of the Academy of Sciences; Director: Candidate Lajos BARTHA (A Magyar Tudomanyos Akademia Gyermeklelektani Intezete) [location not stated]

"Investigation of the Evolutionary Line of Interpreting Moral Categories"

Budapest, Magyar Pszichologiai Szemle, Vol 19, No 4, 1962, pp 426-438

Abstract [Author's English summary modified]: Five hundred 4 to 10 years old children were tested for establishing the content of the children's mind corresponding to the concepts of good and evil, this pair of opposite concepts being the most suited indicators of the notion children have of moral concepts. The results checked were investigated from the viewpoint of development and classified into groups according to following criteria: Adaptation to the demands of environment, to the standards of social behavior and performance. The curve of the evolution points at development from conventional expressions of authoritarian origin, through words full of personal empirical facts toward expressions of general character with adequate content, -- from subjective judgments to objective ones, -- from the egocentric points of

1/2

ARKOSNE Udvardy, Sarolta, dr.

Interpretation of moral categories and its investigation from the point of view of psychology of evolution. Magy pszichol szemle 19 no.4:426-438 '62.

1. Magyar Tudomanyos Akademia Gyermeklelektani Intezete. Igazgato Dr. Bartha Lajos kandidatus.

ADERIKHIN, A.S.; AR'KOV, V.G.; BAGROV, K.I.; SALIMON, V.S.; KULIKOV, O.A.

Mechanical building-up of metal cutting tools. Biul.tekh.-ekon. inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. 16 no.8:25-27 '63. (MIRA 16:10)

81368
S/181/60/002/03/27/028
B006/B017

18.7200

AUTHORS: Vasil'yev, D. M., Arkovenko, G. I.

TITLE: On the Part Played by Microstrains in the Process of Plastic Deformation of Metals

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 3, pp. 543-546

TEXT: The authors reported on investigations of microstrains occurring in plastic deformation of samples of Л-70 (L-70) brass and aluminum. Brass was homogenized for 30 hours at 400°C, aluminum (purity of 99.7 per cent) for two hours at 250°. The microstrains were measured according to shifts and widenings of the K_αNi line 331 in the case of brass and according to the K_αCu line 333/511 in the case of aluminum. The elasticity limit $\sigma_{0.05}$ determines the resistance to deformation. Fig. 1 shows various characteristic curves drawn on brass samples. For aluminum (no diagrams are shown of these experiments) the greatest change in the properties investigated was observed in the range 100 - 250°C; $\sigma_{0.05}$ had its maximum at 100°C. The course of the individual curves is discussed. It is

Card 1/2

4

L 04631-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6010099 (N) SOURCE CODE: UR/0129/66/000/003/0060/0062

AUTHORS: Arkovenko, G. I.; Grekov, N. A.; Lyapicheva, N. F.; Sazonova, T. N.

ORG: none

TITLE: Relaxation of tensions in titanium alloys, as a function of hot deformation conditions

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 3, 1966, 60-62

TOPIC TAGS: titanium alloy, metal grain structure, metal deformation / VT3-1 titanium alloy, VT-14 titanium alloy

ABSTRACT: The influence of temperature and degree of deformation on the relaxation of tensions in the titanium alloys VT14 and VT3-1 was studied. The chemical composition, the usual mechanical properties, the grain size and grain structure, and the microstructure of the alloys were investigated. The experimental results are presented in graphs and tables (see Fig. 1). It was found that the deformation of alloys VT3-1 and VT-14 specimens in the β-region leads to a formation of coarse grains and to a decrease in the relaxation stability. Lowering the deformation temperature to the $(\alpha+\beta)$-region yields, upon deformation, a more homogeneous structure and leads to an increase in the relaxational stability. The alloy VT14 is more sensitive to hot deformations than is alloy VT3-1.

UDC: 669.245:539.371

Card 1/2

L 04631-67

ACC NR: AP6010099

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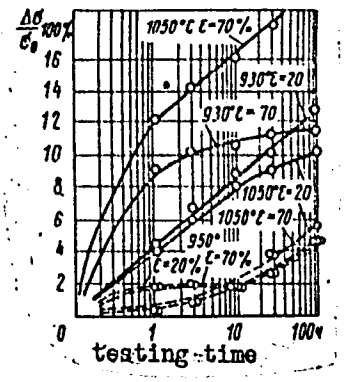
Fig. 1. Relaxation of tensions (for cylindrical specimens) at 100C and $\sigma_0 = 0.65\sigma_{0.2}$ for VT3-1 and $\sigma_0 = 0.70\sigma_{0.2}$ for VT14 as a function of the testing time, heating temperature during forging, and degree of deformation during final heating stage: dashed curve alloy VT3-1; solid curve - alloy VT-14.



Orig. art. has: 2 tables and 3 graphs.

SUB CODE: 11/ 13/ SUBM DATE: none

awm

Card 2/2

ARKULIS, A.; KUPERMAN, I.

"Computing lowering of costof production at each industrial operation." Bukhg. uchet. 11, No. 5, 1952

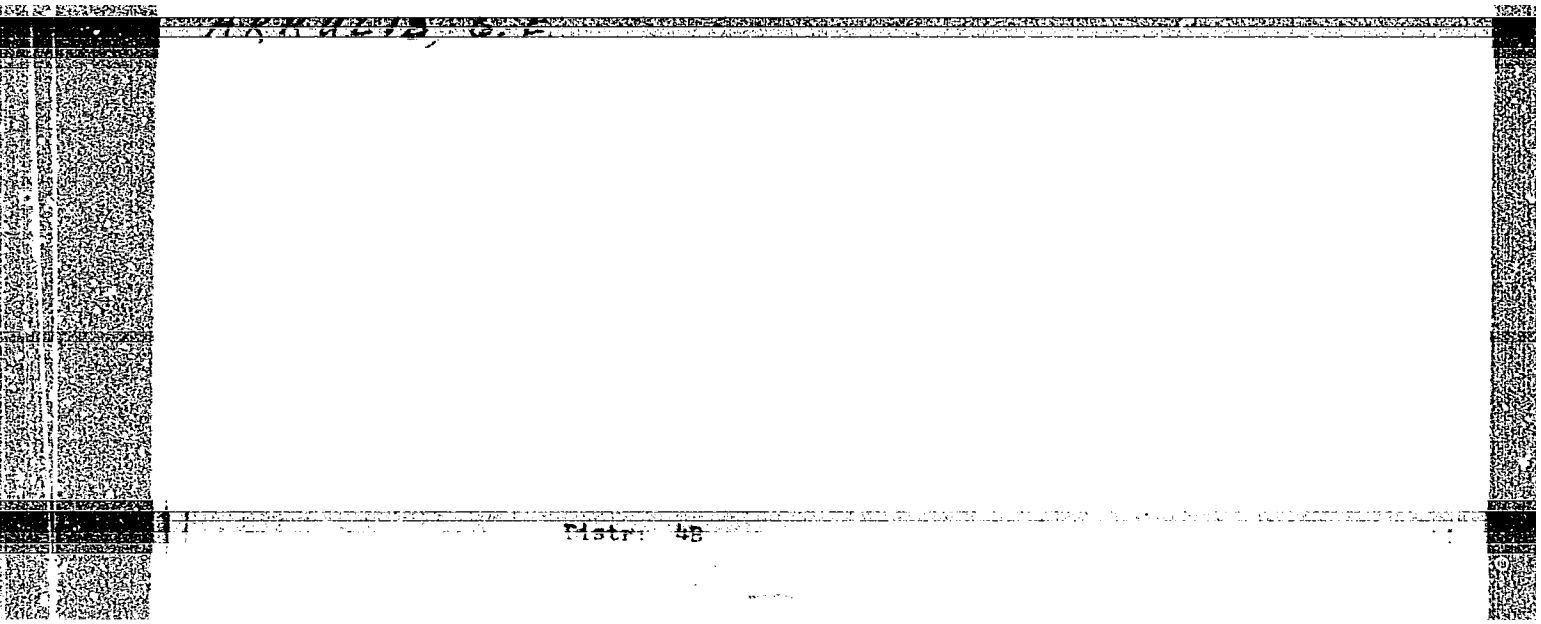
SO: MLRA, August 1952.

*ARKULIS, O.E. CAND TECH SCI

Dissertation: "Concerning the Nonuniformity of Deformation along the length of a Strip."

28 June 49
Moscow Order of the Labor Red Banner Inst of Steel imeni I.V. Stalin.

SO Vecheryaya Moskva
Sum 71



Arkulis, G. E.

137-58-3-5100

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 91 (USSR)

AUTHOR: Arkulis, G. E.

TITLE: A Theory on the Maximum Possible Single-pass Elongation of Wire During Drawing (Teoriya maksimal'no vozmozhnykh vytyazhek za propusk pri volochenii provoloki)

PERIODICAL: Sb. nauchn. tr. Magnitogorskiy gornometallurg. in-t, 1957, Nr 11, pp 195-207

ABSTRACT: The determination of maximum elongation theoretically possible in a single pass is based upon a differential equation of equilibrium in terms of averaged principal stresses and including allowances for the hardening of the metal. It is concluded that the limit of possible elongation depends on the coefficient of relative work hardening, rather than on the σ_s. An equation is offered for the purpose of analyzing the possibilities of the drawing process when the values of α and β are small.

B. Ye.

Card 1/1

SOV/137-59-1-1628

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

AUTHOR: Arkulis, G. E.

TITLE: The Method of "External Marks" Permits Computation of Internal Nonuniformities in Deformation Occurring During Upsetting Operations (Metod "naruzhnykh otmetok" dlya rascheta vnutrenney neravnomernosti deformatsii pri osazhivanii)

PERIODICAL: Tr. Mezhvuz. nauchno-tekhn. konferentsii na temu: "sovrem. dostizh. prokatn. proiz-va". Leningrad, 1958, pp 66-70

ABSTRACT: A description of a method permitting the calculation of nonuniformities in deformation produced during upsetting operations. Recommended for shop practice, the method requires no special experimental specimens, the calculations being based on a geometrical relationship existing between the curvature of imaginary transverse planes within the object under consideration and its barrel-like contours. The nonuniformity in deformation along the vertical axis is computed from the curvature of the planes mentioned.

I. B.

Card 1/1

18.5200

77694
SOV/148-60-1-17/34

AUTHOR: Arkulis, G. E.

TITLE: Concerning the Theory of Joint Plastic Deformation of Various Metals

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, 1960, Nr 1, pp 102-107 (USSR)

ABSTRACT: The aim of this work was to develop an abstract idea capable of describing a joint compression of different metals in its pure aspects, its special features, and to discover some inherent mechanism of the process. The working by forces of pressure of the multilayer materials is developing intensively in the USSR. This necessitates the development of the theory of joint plastic deformation of different metals. A. F. Golovin offered a conception of "uniform compression" (A. F. Golovin, Rolling, part I, Theory of plastic deformation, Metallurgizdat, Sverdlovsk, 1954). I. M. Pavlov offered a theory of rigid ends (I. M. Pavlov, Rolling, drawing and extrusion of metals in connection with the theory of

Card 1/7

crack formation, ZhRM, 1927, Nr 1), when considering any type of working by forces of pressure. I. Ya. Tarnovskiy (Shape changing during plastic working of metals, Metallurgizdat, Sverdlovsk, 1954) using A. F. Golovin's conception, taking into account the most important features of the process of compression and neglecting the nonessential features, came to the starting points for the analysis of real nonuniform deformation. The author begins his analysis with the uniform compression of a cylinder by the flat parallel plates to the distance dh along the axis z. The current height h is connected with the increment dz' of coordinate of any point z' by an equation:

$$\frac{dz'}{z'} = \frac{dh}{h}. \qquad (1)$$

Concerning the Theory of Joint Plastic Deformation of Various Metals

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According to I. Ya. Tarnovskiy this is an ideal upsetting because it requires: (1) a complete homogeneity of the body; (2) upsetting without rigid ends (external zones); (3) absence of the effect of external friction. Figures 1 and 2 illustrate the problems involved.

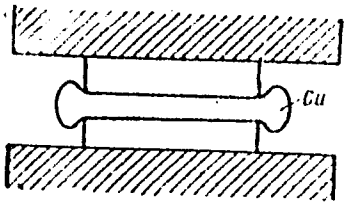

Fig. 1. A diagram of compression of a copper cylinder between the harder cylinders in the absence of external friction in the parting planes.

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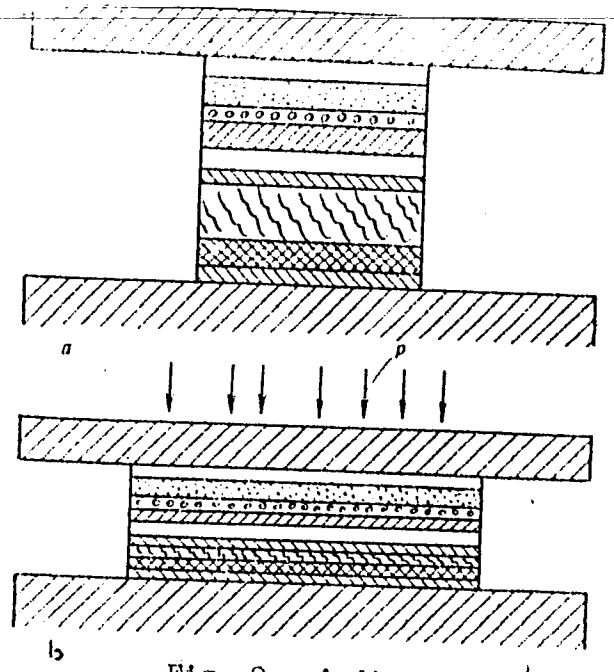

Fig. 2. A diagram of ideal joint upsetting of different metals: (a) before compression; (b) after compression.

Card 4/7

Concerning the Theory of Joint Plastic Deformation of Various Metals

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An ideal upsetting of multilayer body can be considered an upsetting of different metals under the conditions of linear stressed state in the whole volume of the body (ideal joint plastic deformation of different metals) as shown in Fig. 2. Such an abstract idea describes satisfactorily both the uniform compression of a homogeneous body and the nonuniform compression of a multilayer body with the development of their internal mechanism. The author considers an ideal compression of a body assembled from the plates made from soft (M) or hard (T) material. The number of plates is unlimited. He calls such a body a binary system and derives 16 analytical formulas. He introduces a conception of a modulus of initial heterogeneity of the system, a modulus of relative strengthening of the binary system, and finds a true curve of strengthening during compression of a binary system. He states that the true curve of strengthening of compression in the binary system generally consists of 2 branches: before-critical curve of strengthening and after-critical curve of strengthening. A true curve of strengthening

Card 5/7

of binary system (plotted by the above method) is given in the Fig. 3. There are 3 figures; and 4 Soviet references.

ASSOCIATION: Magnitogorsk Mining-Metallurgical Institute (Magnitogorskiy gorno-metallurgicheskiy institut)

SUBMITTED: August 12, 1958

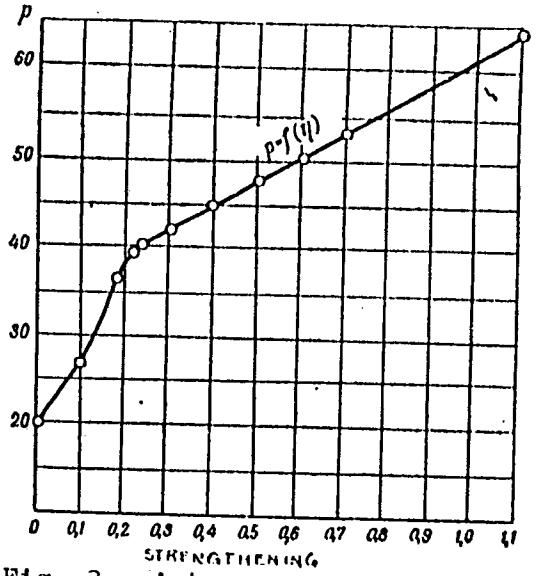

Fig. 3. A true curve of strengthening of binary system consisting of components (M) and (T) with initial yield point p_M = 20 kg/mm^2; p_T = 40 kg/mm^2 and moduli of strengthening $\theta_M = \theta_T$ = 28 kg/mm^2.

Card 7/7

18.5000

77697
SOV/148-60-1-20/34

AUTHORS: Arkulis, G. E., Boyarshinov, M. I.

TITLE: Conditions of Uniform Deformation During Joint Upsetting of Different Type Metals in the Absence of External Friction

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, 1960 Nr 1, pp 121-123 (USSR)

ABSTRACT: This is an analytical study of conditions required for reduction of a multilayer body in order to obtain identical relative deformations of all layers (with given mechanical properties of the system's components). This study is made on the assumption that uniform deformation is understood to mean the identical deformations of system's components only at the definite moments of deformation (and not at any moment of upsetting). For simplification, the authors consider a multilayer body, composed from the unlimited number of plates (parallel to the flat pressing dies) of

Card 1/5

M and T metals (soft M and hard T metals-binary system). They assume the initial yield points p_M and p_T, and moduli of strengthening θ_M and θ_T, respectively. They express the condition of uniformity of deformation during compression of such a binary system as:

$$\eta = \eta_M = \eta_T, \qquad (1)$$

where η = joint true height deformation of the whole body; η_M and η_T = true height deformations of plates M and T, respectively. The joint height deformation of layers of softer metal is composed from two parts: before-critical deformation η_K and after-critical deformation η_M -when plastic deformation of plates M begins after the beginning of plastic deformation of plates T (Ref 3), G. E. Arkulis:

Conditions of Uniform Deformation During Joint Upsetting of Different Type Metals in the Absence of External Friction

77697
SOV/148-60-1-20/34

The Laws of Joint Plastic Deformation of Different Type Metals, Part 1, Relationship Between the Deformations. Collection of Scientific Papers, MGMI, Nr 4, Metallurgizdat, 1958). Taking into account the conditions of uniformity of deformation (Eq. 1), the authors write:

$$\eta = \eta_{кр} + \eta'_{м}. \qquad (2)$$

The authors refer to the previous work on the subject (Ref 4, G. E. Arkulis: Concerning the Theory of Joint Plastic Deformation of Different Type Metals. News of Institutions of Higher Education, Ferrous metallurgy, 1960, Nr 1) where it was shown that during the ideal joint upsetting of different type metals, there exists a relationship:

$$\eta'_{м} = \eta_{т}\theta,$$

Card 3/5

where θ = coefficient of relative strengthening,

which in this case (binary system), equals the ratio of moduli of strengthening of its components:

$$\theta = \frac{\theta_T}{\theta_M}. \qquad (3)$$

It was also shown before (Ref 4) that the critical stage of deformation of component M is bound to the modulus of initial heterogeneity of binary system. Then by substitution:

$$\eta = \eta\theta + \psi, \qquad (7)$$

which proves that a uniform deformation of all layers of multilayer body of binary system is possible even during the ideal upsetting, if total height deformation of the body is bound to the mechanical properties of its components by the relationship:

$$\eta = \frac{\psi}{1-\theta}. \qquad (8)$$

Conditions of Uniform Deformation During Joint Upsetting of Different Type Metals in the Absence of External Friction

77697
SOV/148-60-1-20/34

The authors conclude that the postulate of the theory of shape-changing, regarding the impossibility of uniform deformation of heterogeneous body in the absence of friction, cannot be generalized. The postulate was derived without taking into account the relationship between the shape-changing and dissimilarity of mechanical properties due to the heterogeneity of the body. There are 4 Soviet references.

ASSOCIATION: Magnitogorsk Mining-Metallurgical Institute (Magnitogorskiy gorno-metallurgicheskiy institut)

SUBMITTED: August 12, 1958

Card 5/5

85805

1.9600 also 1146, 1520, 1467

S/148/60/000/003/003/018
A161/A029

AUTHOR: Arkulis, G.E.

TITLE: Graphical Method for Determining Plastic Deformation of n-Layer Bodies

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. - Chernaya metallurgiya, 1960, No. 3, pp 22 - 25

TEXT: A method is suggested for calculating plastic deformation of bodies consisting of multiple layers of different metals under pressure. The strengthening in deformation is not approximated but taken in its natural value and presented by a separate curve in the graph. Explanation is made by practical solution of two problems: for a bi-metal n-layer body, and for a three-metal body (Fig. 3), where the coordinates σ and η represent stress and deformation, respectively. As may be seen (in Fig. 3), the softer metal A is first to start plastic deformation and B and C follow after a brief interval of elastic deformation. The correlation between the stresses and deformations is easily determined at any moment by vertical lines projected from the intersection points of the strengthening curves with the horizontal stress lines. The author calls the graphs "СПДРМ"

Card 1/3

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S/148/60/000/003/003/018
A161/A029

Graphical Method for Determining Plastic Deformation of n-Layer Bodies

("SPDRM") for "Sovmestnaya Plasticheskaya Deformatsiya Raznorodnykh Metallov" ("Joint plastic deformation of different metals") of I order. The graphs give the hight deformation values η_i of every layer component. Calculation is made with the following simplifying assumptions: no friction exists from outside and between layers and the softer metal flows out into the burr continually. The total height deformation is calculated by the found η_i values using equations that have been derived by the author previously (Ref. 3):

$$\eta = \ln \frac{1}{\frac{A_1}{e^{\eta_1}} + \frac{A_2}{e^{\eta_2}} + \cdots + \frac{A_n}{e^{\eta_n}}} = - \ln \sum_1^n \frac{A_i}{\gamma_i},$$

where $A_i = h_{oi}/h_o$ is the specific depth of one-component metal layers before compression;

$\gamma_i = h_{oi}/h_i$ - the height deformation coefficient for these layers. Hence, in joint plastic deformation of different metals

$$\gamma = \frac{1}{\frac{A_1}{\gamma_1} + \frac{A_2}{\gamma_2} + \cdots + \frac{A_n}{\gamma_n}}$$

Card 2/3

85805

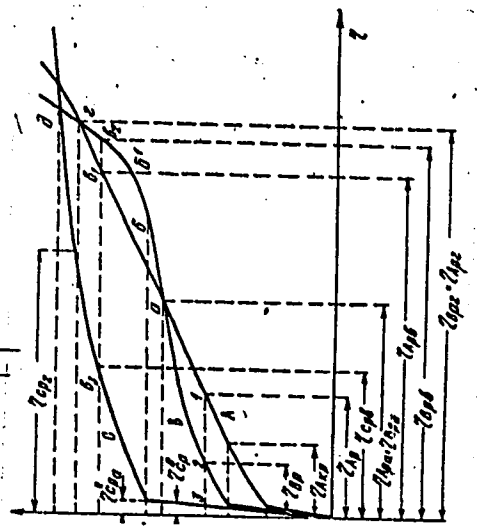
S/148/60/000/003/003/018
A161/A029

Graphical Method for Determining Plastic Deformation of n-Layer Bodies

There are 3 figures and 3 Soviet references.

Figure 3:

Diagram of the Elastic-Plastic State of a 3-Component n-Layer Body During Its Compression Under the Conditions of a Linear Stressed State.



ASSOCIATION: Magnitogorskiy gorno-metallurgicheskiy institut (Magnitogorsk Mining and Metallurgical Institute)

SUBMITTED: May 11, 1959

Card 3/3

85806

1.9600 also 1146, 1520, 1467

S/148/60/000/003/004/018
A161/A029

AUTHOR: Arkulis, G.E.

TITLE: Determining the Laws of Uniform Joint Plastic Deformation of Different Metals

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. - Chernaya metallurgiya, 1960, No. 3, pp 30 - 36

TEXT: Uniform deformation of different metals in layers is one of the major problems in pressure working, but the laws of such deformations are not yet determined. The author previously suggested a solution (Ref. 1, No. 1, 1960, of this periodical), i.e., for the problem of joint plastic compression of different metals at an arbitrary number of component metals and any law of their deformation strengthening in linear stress conditions. In this work the case of longitudinal compression is considered assuming absence of interlayer friction and outer friction, and bonds on the free countour preventing outflow of separate layers, but producing no usual "rigid ends" causing external retaining efforts (which condition can be produced approximately by welding the edges or by compression in a shell assembled from plates sliding without friction in

Card 1/3

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S/148/60/000/003/004/018
A161/A029

Determining the Laws of Uniform Joint Plastic Deformation of Different Metals

grooves, or other means). For the case when the strengthening curves of the component metals cannot be expressed by simple equations, a graphical method is suggested. In longitudinal compression the correlation between stresses and deformations is determined by the intersection points of the "joint deformation verticals" with the strengthening curves (Fig. 2,b, points a', a", and b', b"). The case of a n-layer four-component body is analyzed, in which the component T plates are stretched in the beginning and become compressed (along the x and y axes) later, and the M component layers are compressed by additional stresses in the beginning (along same axes) and become stretched later. There are 4 figures and 5 Soviet references.

ASSOCIATION: Magnitogorskiy gorno-metallurgicheskiy institut (Magnitogorsk Mining and Metallurgical Institute)

SUBMITTED: May 11, 1959

Card 2/3

85806

S/148/60/000/003/004/018
A161/A029

Determining the Laws of Uniform Joint Plastic Deformation of Different Metals

Figure 2:
State diagrams of a binary n-layer body, a - diagram of the I type (compression as described in the text but with "free conditions at the end"); b - diagram of the II type (compression as described); n - horizontals of total stresses $\sigma_z = p = p_M = p_T$, $\eta_M \neq \eta_T$.

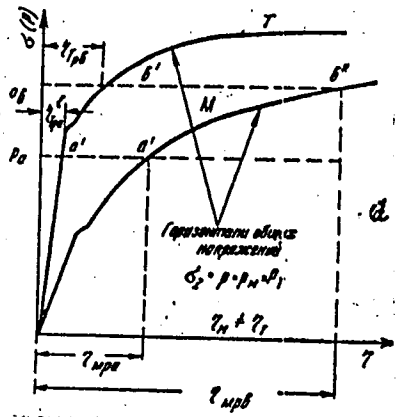


Рис. 2. Диаграммы состояния бинарного n-слойного тела:
a—диаграмма I рода (сжатие по рис. 1, б, но со «свободными условиями на выходе»); $б$ — диаграмма II рода (сжатие по рис. 1, a или 1, б); n — горизонтали общих напряжений $\sigma_z = p = p_M = p_T$, $\eta_M \neq \eta_T$

Card 3/3

S/137/60/000/011/009/043
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 11, pp. 114-115, # 26116

AUTHOR: Arkulis, G.E.

TITLE: On the Effect of External Friction on Resistance of Metal to Deformation

PERIODICAL: Tr. Mezhvuz. nauchno-tekhn. konferentsii na temu "Sovrem. dostizh. prokatn. proiz-va", Vol. 2, Leningrad, 1959, pp. 86 - 92

TEXT: Calculations of the metal pressure on rolls are based on the magnitude of deformation resistance at a linear strained state, K, whose determination by the upsetting method at high deformation is difficult due to the effect of friction on the contact. Exclusion of the effect of friction by extrapolating the dependence of K on the diameter-to-height ratio of the specimen, d/h, to the d/h = 0 value is not founded. Experiments were made to determine the true curve of the deformation resistance of Pb; metal forming the barrel was removed by a cutter rotating around the upset specimen. It is shown that at d/h $\leqslant$ 1.5 - 1.8,

Card 1/2

S/137/60/000/011/009/043
A006/A001

On the Effect of External Friction on Resistance of Metal to Deformation

K is constant and does not depend on the forces of contact friction. During rolling, friction ceases to exert an effect at $h/l_d < 2$ (l_d - length of the deformation seat). The dependence of K on relative reduction shows a rectilinear nature for strengthening metals in the range of $d/h \leq 1.5 - 1.8$.

L.M.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

S/137/60/000/011/006/043
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 11, p. 114, # 26106

AUTHOR: Arkulis, G.E.

TITLE: Some Problems of Rolling Theory and Technology

PERIODICAL: Tr. Mezhvuz. nauchno-tekhn. konferentsii na temu: "Sovrem. dostizh. prokatn. proiz-va". Vol. 2, Leningrad, 1959, pp. 359 - 362

TEXT: The improved quality of rolls and the development of control methods and equipment is an important problem in the rolling technology. It was established that the conditions of the contact surface during compression of a machined cylinder did almost not affect the deformation resistance at $h/d \geqslant 0.65$. This leads to the conclusion that the energy consumed during rolling of thick strips does not depend on the surface roughness of the roll barrel. It is shown that the variational method of calculation in spite of its outlook is not fully con-

Card 1/2

venient for practical use. It is suggested to use experimental results obtained by the method of coordinate network combined with the law of constant volume, to calculate deformations.

L.M.

Translator's note: This is the full translation of the original Russian abstract.

S/137/61/000/003/012/069
A006/A101

AUTHOR: Arkulis, G.E.

TITLE: On the law of barrel formation during the compression of cylinders

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 3, 1961, 25, abstract 3D194 ("Sb. nauchn. tr. Magnitogorskiy gornometallurg. in-t", 1960, no. 20, 58 - 63).

TEXT: The author proposes an analytical method of calculating approximately the height of a barrel and the degree of barrel formation d_b/d_c (d_b and d_c are the diameter of the forged piece mean over the height of its section and in the butt contact surface, respectively) during upsetting. The effect of barrel formation on the redistribution of metal in the volume of the forged piece is discussed.

M. Ts.

[Abstracter's note: Complete translation.]

Card 1/1

S/137/61/000/007/029/072
A060/A101

AUTHORS: Laur, G. K.; Arkulis, G. E.

TITLE: Imperfections in rolls for cold rolling of sheets and method of eliminating them

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 7, 1961, 10, abstract 7D70 ("Tr. Konferentsii: Tekhn. progress v tekhnol. prokatn. proiz-va", Sverdlovsk, Metallurgizdat, 1960, 435-439)

TEXT: At the three-stand mill of MMK the Magnitogorsk Mining-Metallurgy Institute carried out for 1 1/2 years continuous three-shift observations of the operation of the rolls for cold rolling made in different plants, recording the grading and conditions of rolling, reasons for roll changing, results of abrasion, etc. The 43/1 (TsZL) of MMK carried out the metallographic analysis of the parts crumbled out of the rolls and of disks cut out of them, as well as scleroscopic control. Moreover a card was kept for every roll, representing the development of the roll surface, on which the location of defects was indicated. As result of the investigation carried out it was established that: 1) rolls from different plants differ in durability, 2) the technology of roll manufacture in

Card 1/2

S/137/62/000/005/064/150
A006/A101

AUTHOR: Arkulis, G. E.

TITLE: On maximum extrusion in drawing

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1962, 34, abstract 5D193 ("Tr. Konferentsii po metizn. proiz-vu, 1959", Cheliyabinsk, 1961, 36-42)

TEXT: A method is suggested of calculating the maximum possible extrusion per pass in drawing, which is not contradictory to I. M. Pavlov's equation, but analyzes it correctly. The author discusses theoretically possible extrusions in uniform drawing and the effect of the drawing speed and of the intensity of cooling the fiber upon the magnitude of maximum extrusion. An analysis of the following equation is given.

$$\mu_{max} = \sqrt[a]{1 + a\,(1 - e)/(1 - E)}$$

[Abstracter's note: Complete translation]

N. Yudina

Card 1/1

1.1310
1.1800

37240
S/148/62/000/003/005/011
E161/E435

AUTHORS: Boyarshinov, M.I., Arkulis, G.E., Brichko, G.A.

TITLE: Energy principles in the problem of the compression of layered bodies

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no.3, 1962, 88-94

TEXT: When bodies consisting of layers of different metals are compressed, three possible effects can occur: a selective deformation of the individual layers, a simultaneous uniform deformation of all layers or, lastly, a simultaneous nonuniform deformation in which all layers are deformed, but to different degrees, owing to slippage of layers one over the other. This paper considers the energy principles involved in these processes, especially in the case of forming metals by pressure. The general theoretical development is based on the principle of virtual work, applied to each layer of the body. The resulting equations are summed over all the layers and this leads to a variational equation. Special cases are then considered: firstly, in which the inter-layer forces do not vary and, secondly,

Card 1/ 2

Energy principles ...

in which they vary as functions of the displacements. The effect of the strengthening of specific layers is next considered and its application to forming metals by pressure. Equations are derived which can be utilized for the solution of problems concerning plastic form-change of a layered medium which is being work hardened. A specific example is comprehensively analysed - upsetting of metals under the influence of pressure. The model considered is a solid metal cylinder clad at each end with a different material, the whole being compressed by pressure directed inwards and applied by means of two horizontal plates. Application of the theory leads to expressions for the deformations of the claddings and of the central cylinder, and for the mean pressure at the contact surfaces during upsetting of bimetallic cylinders. There are 2 figures.

ASSOCIATION: Magnitogorskiy gornometallurgicheskiy institut (Magnitogorsk Mining Metallurgical Institute)

SUBMITTED: January 25, 1961

Card 2/2

39067

/8.6200

S/148/62/000/005/004/009
E081/E135

AUTHOR: Arkulis, G.E.

TITLE: Theory of the determination of the forces and work of compression in a multi-layered body

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no.5, 1962, 108-114

TEXT: Continuing previous work, the joint plastic deformation of several layers of dissimilar metals is considered. Such deformation in compression is encountered in the rolling of cladded metals, drawing of bimetallic wires and the stamping of bimetallic articles. One of the components may deform more than the other, some of this component may be wasted, and solutions of the problem based on constancy of volume no longer apply. A system containing a 'hard' and a 'soft' component is analysed in terms of the planes of contact and the hardening moduli of the components. The general case of an n-layered m-component system is then considered and illustrated for $m = 3$ by discussing the process in relation to the stress-strain curves for the

Card 1/2

Theory of the determination of ...

individual components. Finally, general formulae are derived for the forces and work of deformation in the regions of partial and complete joint plastic deformation of an n-layered m-component system.
There are 2 figures.

ASSOCIATION: Magnitogorskiy gornometallurgicheskiy institut (Magnitogorsk Mining and Metallurgical Institute)

SUBMITTED: July 14, 1960

Card 2/2

ARKULIS, G.E.

Problem of plastic compression compression of a multilayer body of variable mass. Izv. vys. ucheb. zav.; chern. met. 5 no.7: 114-121 '62. (MIRA 15:8)

1. Magnitogorskiy gornometallurgicheskiy institut.
(Rolling (Metalwork)) (Laminated metals)

ARKULIS, Grigoriy Emmanuilovich; LYASHKOV, V.B., red.

[Simultaneous plastic deformation of dissimilar metals] Sovmestnaia plasticheskaia deformatsiia raznykh metallov. Moskva, Izd-vo "Metallurgiia," 1964. 270 p.
(MIRA 17:7)

ACCESSION NR: AT4030816 S/0000/64/000/000/0299/0302

AUTHOR: Boyarshinov, M. I.; Arkulis, G. E.; Brichko, G. A.

TITLE: On calculating the irregularity of deformation in plastic compression of bimetal strips

SOURCE: Nauchno-tekhnicheskaya mezhvuzovskaya konferentsiya po inzhenerny*m metodam raschetov tekhnologicheskikh protsessov obrabotki metallov davleniyem. Sverdlovsk, 1961. Inzhenerny*ye metody* rascheta tekhnologicheskikh protsessov obrabotki metallov davleniyem (engineering methods in calculating technological processes of metal working by pressure); Doklady* konferentsii. Moscow, Metallurgizdat, 1964, 299-302

TOPIC TAGS: deformation, compression, bimetal strip, plating, stress, pressure

ABSTRACT: In this paper, the authors made an approximate calculation of the deformation irregularity in plastic compression between parallel plates of strips plated on both sides with a softer material. The authors used a method of averaging one of the main stresses. They assumed: 1) that the stresses arising in the layered strip during its compression do not change in the thickness of each layer, 2) the forces of internal friction and the interlayer adhesion are uniformly distributed

ACCESSION NR: AT4030816

along the contact surfaces; the forces of interlayer adhesion are passive, and 3) the forces of friction are assumed to be proportional limits of consistency of the deformed metals, while the interlayer forces of friction are proportional to the limit of consistency of the soft metal. Through a series of mathematical arguments, the authors arrived at formulas for the three separate zones of deformation. They concluded that by a similar method it is possible to resolve the problem in determining the deformation irregularity of the layers when a harder metal is used as a plating layer. Determining the deformation irregularity by a similar method in the sagging of bimetal cylinders or in the rolling of bimetal strips is more complex since in these cases supplementary stresses within the deformed volumes appear as a consequence of the deformation irregularity. Orig. art. has: 11 formulas and 2 figures.

ASSOCIATION: none

SUBMITTED: 30Oct63 DATE ACQ: 06Apr64 ENCL: 00

SUB CODE: ML NO REF SOV: 000 OTHER: 000

Card 2/2

ACCESSION NR: AT4030817 S/0000/64/000/000/0303/0307

AUTHOR: Boyarshinov, M. I.; Arkulis, G. E.; Brichko, G. A.

TITLE: Experiment for calculating the rolling of bimetal sheets

SOURCE: Nauchno-tekhnicheskaya mezhvuzovskaya konferentsiya po inzhenerny*m metodam raschetov tekhnologicheskikh protsessov obrabotki metallov davleniyem. Sverdlovsk, 1961. Inzhenerny*ye metody* rascheta tekhnologicheskikh protsessov obrabotki metallov davleniyem (engineering methods of calculating technological processes of metal working by pressure); Doklady* konferentsii. Moscow, Metallurgizdat, 1964, 303-307

TOPIC TAGS: bimetal sheet, rolling, deformation, plastic deformation, mechanical property, layer, interlayer friction, friction

ABSTRACT: The authors examined the forces and deformations in rolling bimetal sheets on smooth rollers. The rolling of bimetal strips were separated into the following cases: 1) the state of joint deformation unfulfilled in one cross-section of the deformation focus, then only selective deformation occurs, 2) the state of joint deformation fulfilled throughout the entire length of the deformation focus, then selective deformation is completely absent, and 3) in the presence of

Card 1/2

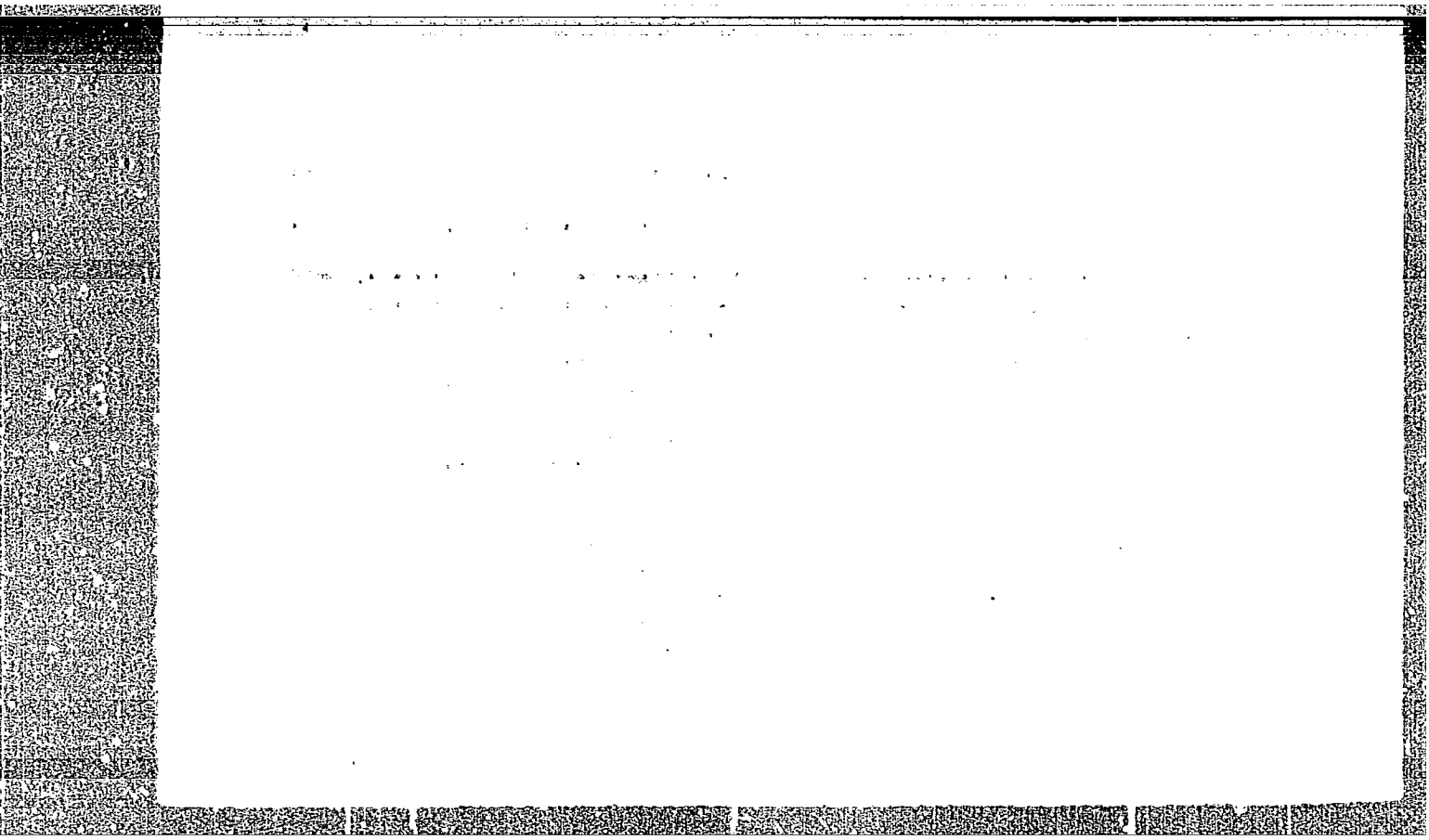
ACCESSION NR: AT4030817

selective deformation at the beginning of the deformation focus and the further joint deformation of layers. The rolling of a strip, plated on both sides by a softer metal, was examined. The specific pressure acting in the deformation along each of the three possible variants, and the state in which selective deformation would be absent were determined. Through a series of mathematical arguments, the authors arrived at equations for each of the three above-mentioned cases. Orig. art. has: 14 formulas and 2 figures.

ASSOCIATION: none

SUBMITTED: 30Oct63	DATE ACQ: 06Apr64	ENCL: 00
SUB CODE: ML	NO REF SOV: 004	OTHER: 000

Card 2/2



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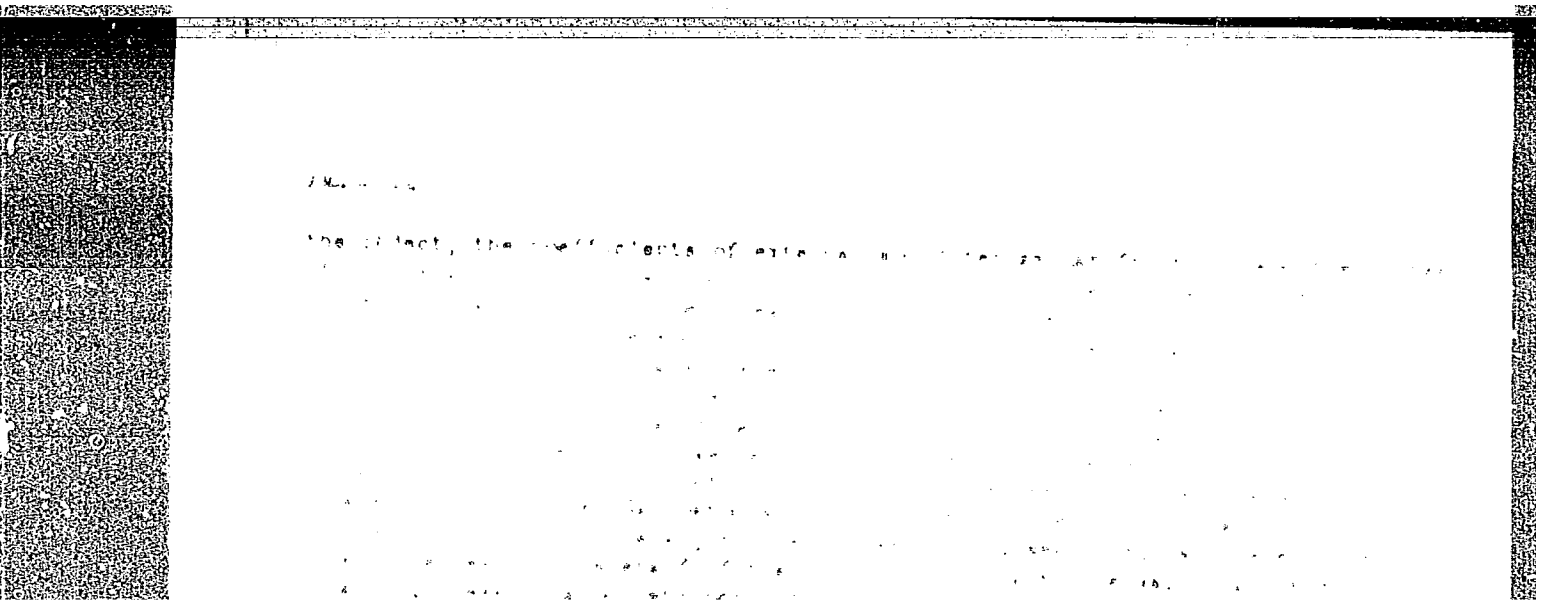
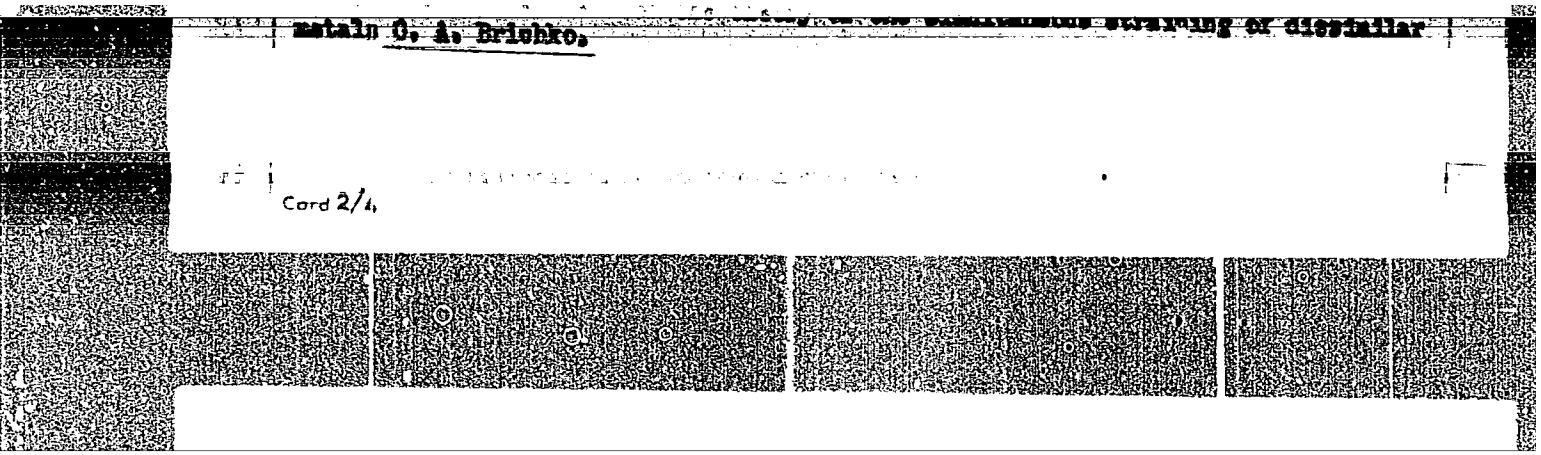
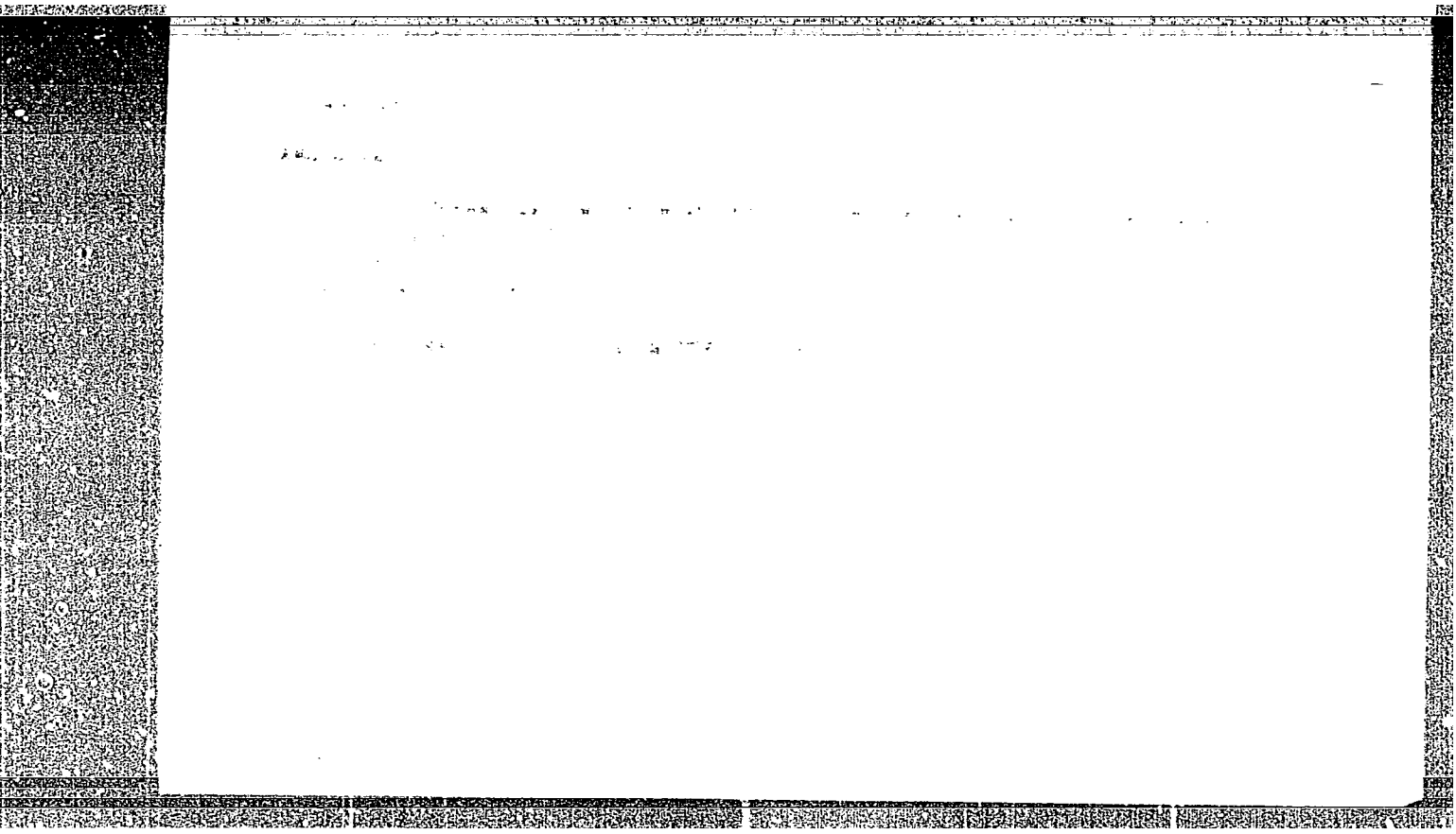




Natalia O. A. Brichko.

Card 2/4.



APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000102110020-4"

ARKUS, G. M., CZOL, F. ZH.

Electric Motors - Starting Devices

Automatic start of electric motors with KEF apparatus. Energ. biul. No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

ARKUS, G.M., inzhener.

Automatic recording of machine power loads. Proizv.-tekh.inform. no.5:100-104 '53. (MLRA 10:3)

1. Institut Orgmashpribor.
(Electric controllers)

ARKUS, L. Z.

58/49T51

USSR/Electricity
Transformers
Steel, Transformer

May 49

"New Types of Current Transformers at the 'Uralelektroapparat' Plant," L. Z. Arkus, I. A. Dzhanshiyev, Engineers, Uralelektroapparat Plant, 4 pp

"Vest Electro-Prom" Vol XX, No 5

Discusses development of new current transformers of simple, low-cost construction, and with greater stability against short-circuit currents. Latest transformers are first use new transformer

[redacted]

58/49T51

USSR/Electricity (Contd)

May 49

steel type VP and KhVP developed by Soviet metallurgists. VP steel is used in units with stamped-plate cores. KhVP is used only with annular spiral cores. Describes several new transformers in some detail (including type TPOF, 10 kv, 400 - 1,500 amp, single-turn unit).

[redacted]

58/49T51

PAVLOV, N., inzh. (Minsk); ARKUSH, N., inzh. (Riga); MIKK, E., mekhanik (Tallin); MYAGI, N. [Magi, N.], mekhanik (Tallin); LIBERMAN, V. (Lyubertsy Moskovskoy obl.); ZHURAVLEV, G., tekhnolog

Proposed, made, introduced. Izobr. i rats. no.8:12-13 Ag '62. (MIRA 15:9)

(Technological innovations)

CHERNAVIN, A., ekonomist (Vladimir-Volynskiy); SHAKHANOV, V., inzh. (Moskva); ARKUSH, N., inzh.; SAVITSKIY, A. (Dneprodzerzhinsk)

Suggested, achieved, introduced. Izobr.i rats. no.9:16-17 S '62. (MIRA 16:3)

(Technological innovations)

ARKUSH, N.S.

Giant tanker. Sudostroenie 29 no.4:64 Ap '63. (MIRA 16:4)
(Japan--Tank vessels)

ITSKOVICH, Georgiy Meyerovich; ARKUSHA, A.I., otv. za vypusk; IGNATOVA, T.D., red.

[Methods of presenting the topic "Theories of strength" in technical schools] Nekotorye voprosy metodiki izlozheniia temy "Teorii prochnosti" v tekhnikumakh. Moskva, Upr. kadrov i ucheb. zavedenii. Nauchno-metodicheskii kabinet, 1962. 31 p. (MIRA 15:8)

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TITLE: The properties of rhenium, rhenium-tungsten and rhenium-molybdenum alloys

SOURCE. Akademiya nauk SSSR. Institut metallurgii. Issledovaniya po zharoprochnym splavam. v. 9. 1962. Materialy Nauchnoy sessii po zharoprochnym splavam (1961 g.), 194-203

TEXT: Modern technology demands the most refractory metals such as W, Re, Ta and Mo. In the present work the microstructure and the mechanical properties of Re—W and Re—Mo were investigated at room and at 2600°-3400°C. Methods of casting and of plastic deformation of W—Re, Mo—Re and W—Mo—Re alloys were developed. It was shown that when tungsten and molybdenum are alloyed with rhenium there is an increase in plasticity in machinability in weldability and in strength, and the temperature of recrystallization increases by 400-500°C. There are 4 figures and 1 table.

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1. Heart - Diseases - Diagnosis. 2. Vascular system. 3. Radiography.

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Cardiac morphology and function in infant and young children; roentgenologic investigation. Vopr. pediat. 19 no. 4:16-18 1951. (CIML 21:3)

1. Professor. 2. Of the Therapeutic Division (Head -- Prof. Yu. I. Arkusskiy), Central Roentgenological, Radiological, and Cancer Institute of the Ministry of Public Health USSR (Director -- Prof. M. N. Pobedinskiy)and of the Scientific-Research Pediatric Institute (Director -- Docent A. L. Libov).

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