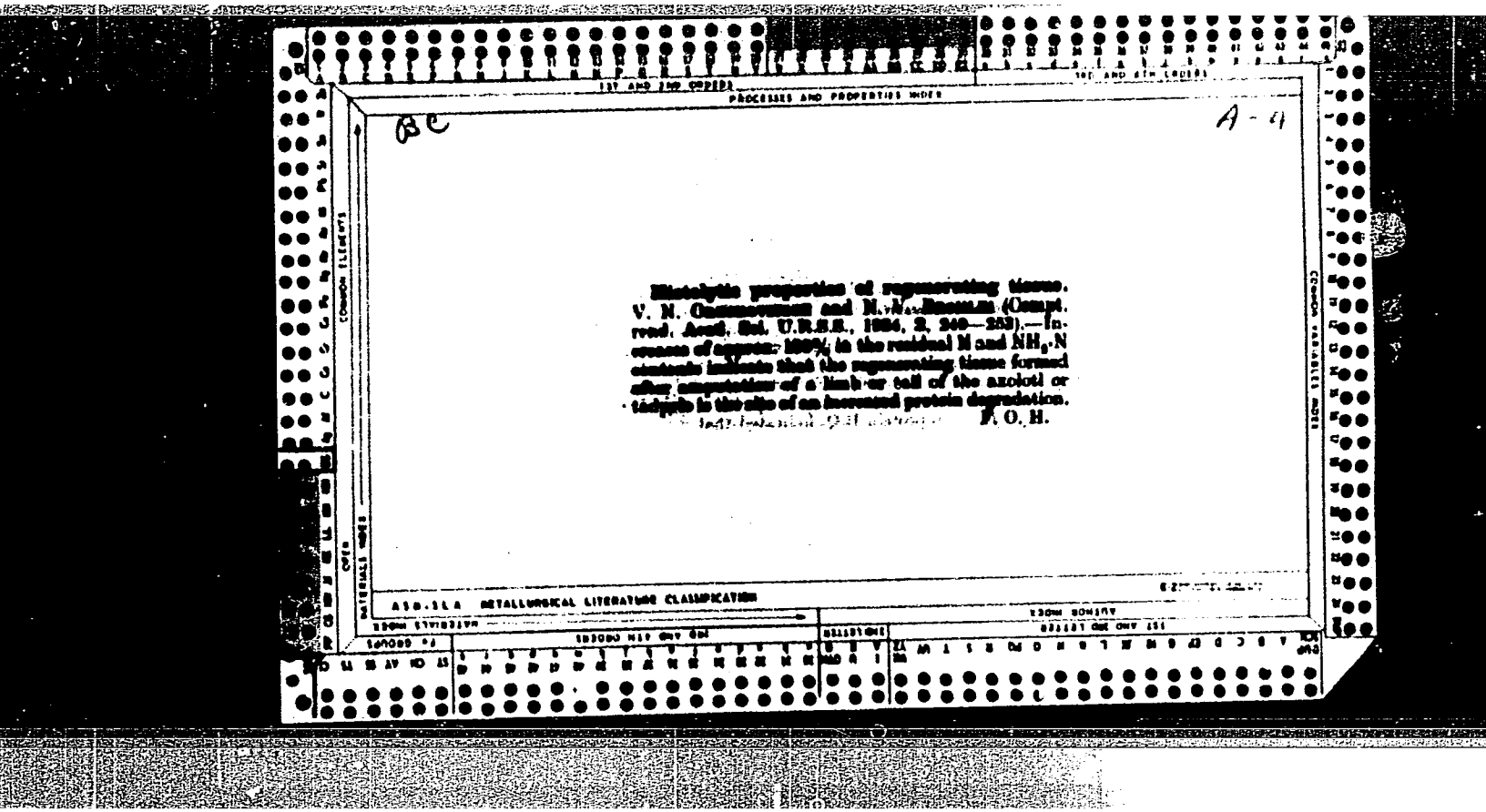
BROMLEY, Mikhail Fedorovich, dots., kand. tekhn. nauk; SHCHEGLOV, Vladimir Porfir'yevich, dots., kand. tekhn. nauk; POLIKARPOV, Valentin Filippovich, kand. tekhn. nauk, nauchn. red.; DOLGOVA, K.N., red.

[Designing the heating and ventilation of industrial buildings] Proektirovanie otopleniia i ventiliatsii proizvodstvennykh zdanii. Moskva, Stroiizdat, 1965. 259 p. (MIRA 18:4)



PROCESSES AND PROPERTIES INDEX

BC

A-4

Histolytic properties of regenerating tissue. V. N. Chumakovtsev and N. V. Ivanova (Compt. rend. Acad. Sci. U.R.S.S., 1934, 2, 249—253).—Increase of approx. 100% in the residual N and NH_3-N contents indicates that the regenerating tissue formed after amputation of a limb or tail of the axolotl or tadpole is the site of an increased protein degradation.

F. O. H.

A59.5LA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

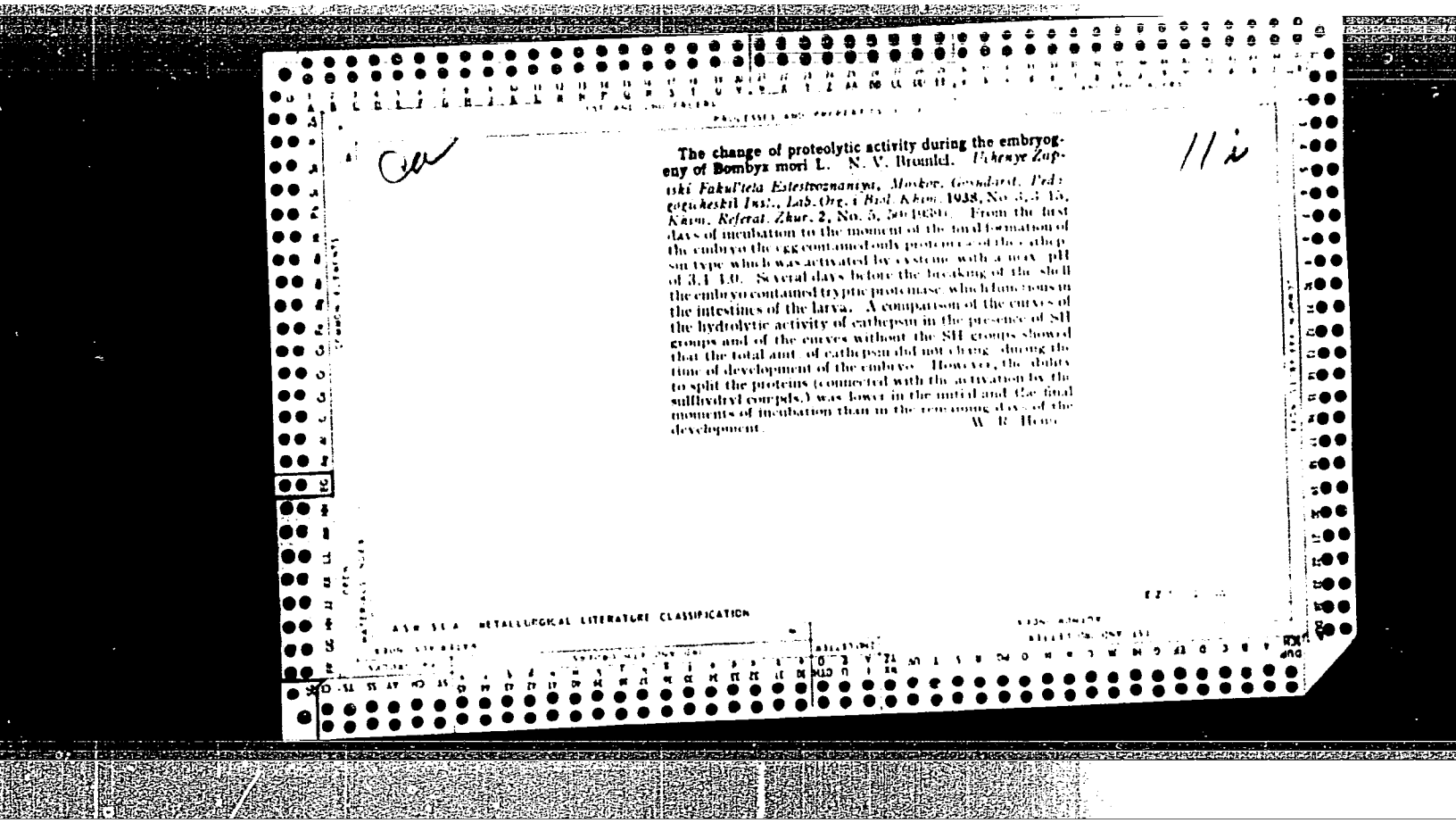
PROCESSES AND PROPERTIES INDEX

BC

A-4

Proteolysis in [illegible] tissues. Autolysis of [illegible] N. V. [illegible] and V. [illegible] (Compt. rend. Acad. Sci. U.R.S.S. [illegible] 3, [illegible].—After section of [illegible] the non-protein [illegible] and of the [illegible] are [illegible] mg. per 100 g. (normal 94 mg.). The corresponding values after 4 hr. of autolysis at pH 6.4 are [illegible], and [illegible], and after 12 hr. 170, 310, and 104. R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



The change of proteolytic activity during the embryogeny of Bombyx mori L. N. V. Bromlei. *Uchenye Zapiski Fakul'teta Estestvoznaniya, Moskov. Gosudarst. Pedagogicheskii Inst., Lab. Org. i Biol. Khim.* 1938, No. 3, 3–15; *Khim. Referat. Zhur.* 2, No. 5, 50 (1939). From the first days of incubation to the moment of the total formation of the embryo the egg contained only proteinase of the cathepsin type which was activated by cysteine with a max. pH of 3.4–4.0. Several days before the breaking of the shell the embryo contained tryptic proteinase which functions in the intestines of the larva. A comparison of the curves of the hydrolytic activity of cathepsin in the presence of SH groups and of the curves without the SH groups showed that the total amt. of cathepsin did not change during the time of development of the embryo. However, the ability to split the proteins (connected with the activation by the sulfhydryl compds.) was lower in the initial and the final moments of incubation than in the remaining days of the development.

W. R. Horn

CA

Chemical composition and buffer capacity of the intestinal juices of oak and mulberry silk worms. A. P. Arsen'ev and N. V. Bromdel. *Doklady Vsesoyuz. Akad. Sel'skokhoz. Nauk im. V. I. Lenina* 16, No. 2, 25-31 (1951). -A 0.05 *N* HCl soln. was added to the juices of the caterpillars, previously dild. with H_2O, and titrated to pH 8.0 (with phenolphthalein) and to 4.0 (with methyl orange). The 2 caterpillar types gave approx. the same titration, 16.8 for the oak and 13.25 milliequiv. for the mulberry worms, per 100 ml. of juice. The oak silk worm contains 13.8 milliequiv. of carbonates per 100 ml. of juice and the mulberry caterpillar 13.0 milliequiv. In the latter the titrated carbonates were present as such, whereas in the oak worms 2 of the 16 milliequiv. consisted of bicarbonates. Practically all of the carbonates are combined with K. J. S. Joffe

USSR / Cultivated Plants. Plants for Technical Use. M-6
Sugar Plants.

Abs Jour: Ref Zhur-Biol., 1958, No 16, 73094.

Author : Arsen'yev, A. F.; Bromley, N. V.; Selinova, T. V.
Inst : Moscow Veterinary Academy.
Title : Manganese and Copper in the Leaves of Mulberry and Oak.

Orig Pub: Tr. Mosk. vet. akad., 1957, 21, 222-231.

Abstract: In the ashes of leaves of the mulberry and oak collected in various rayons of the USSR, Mn and Cu were determined by the corimetric method. These substances do not limit the viability of the bombyx since, in rayons where their content in the mulberry leaves is minimal, the development of the silkworm proceeds successfully. Food for the oak silkworm must contain a significant quantity of Mn.

Card 1/2

USSR / Cultivated Plants. Plants for Technical Use. M-6
Sugar Plants.

Abs Jour: Ref Zhur-Biol., 1958, No 16, 73094.

Abstract: With a small Mn content in oak leaves (9.0-13.5 mg%) mass dying of caterpillars occurred. A low Cu content exerted no influence on the activity of the silkworm. Bib. 11 titles. -- N. G. Zhirnova.

Card 2/2

AFONSKIY, Sergey Ivanovich; prof.; BROMLEY, N.V., red.; LIPKINA, T.G., red. izd-va; VORONINA, M.K., tekhn.red.

[Animal biochemistry] Biokhimiia zhivotnykh. Moskva, Gos. izd-vo "Vysshaia shkola," 1960. 619 p.

(Biochemistry) (Veterinary physiology) (MIRA 14:2)

AFONSKIY, S.I., prof., red.; BROMLEY, N.V., kand. biol. nauk; POLUNIN, P.M., kand. biol. nauk, red.; ROGOZHKIN, A.G., red.

[Biocomplexes and their importance] Biokompleksy i ikh znachenie. Moskva, Kolos, 1965. 187 p. (MIRA 18:9)

1. Simpozium na temu "Biokompleksy i ikh znacheniye." Moscow, 1962.

BROMLEY, N.Ya.; DVORYANOV, V.N.; KIM, M.P., red.

[Rise in the material prosperity of the Soviet people and achievements in the field of public health, phusical education, and sports in the U.S.S.R. 1945-1960; index to the literature] Pod"em material'nogo blagosostoianiia Sovetskogo naroda i dostizheniia v oblasti zdravookhraneniia, fizkul'tury i sporta v SSSR, 1945-1960 gg.; ukazatel' literatury. Pod red. M.P.Kima. Moskva, In-t istorii Akad.nauk SSSR, 1961. 55 p. (MIRA 14:6)

1. Chlen-korrespondent AN SSSR (for Kim).
(Bibliography--Russia--Economic conditions)
(Russia--Economic conditions--Bibliography)
(Bibliography--Public health)

BROMLEY P.V.

USSR/Miscellaneous - Glass manufacture

Card 1/1 : Pub. 104 - 3/9

Authors : Bromley, P. V.

Title : Improvement of glass manufacturing equipment

Periodical : Stek. i ker. 8, 5-10, Aug 1954

Abstract : Various ideas on the improvement and reconstruction of available glass manufacturing equipment (grinding and polishing machines especially) are presented. Numerous purely technological factors, expected to result in better and larger outputs of glass products, are discussed. Drawings.

Institution : .....

Submitted : .....

VEYNBERG, Kal'man Lipmanovich; GURFINKEL', Isaak Yevgen'yevich[deceased]; KOTLYAR, Abram Yevseyevich; NOL'KEN, Maksimilian Petrovich; ORLOV, Anatoliy Nikolayevich; KHERSONSKIY, Sergey Semenovich; SHKOL'NIKOV, Yakov Abramovich; BROMLEY, P.V., retsenzent; ZALIZNYAK, A.A., retsenzent; KISELEV, N.V., retsenzent; KLEGG, D.I., retsenzent; SHVAGIREV, Ya.D., retsenzent; DUKHOVNYY, F.N., red.; TRISHINA, L.A., tekhn. red.

[Equipment and mechanization of glass factories]Oborudovanie i mekhanizatsiia stekol'nykh zavodov. [By] K.L.Veinberg i dr. Moskva, Rostekhizdat, 1962. 451 p. diagrs. (MIRA 15:10)
(Glass—Equipment and supplies)

1. GREKOV, B. D., ACAD; BROMLEY, YU. V.

2. USSR (600)

4. Crimea—History

7. Study of Crimean history
Vest. AN SSSR 22 no.8, 1952

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

S/058/63/000/003/022/104
A062/A101

AUTHOR: Bromli, D. A.

TITLE: Mechanism of reactions with participation of nuclei of mass 2 and 3

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 17, abstract 3V127 (In collection: "Stroyeniye yadra". Moscow, Gosatomizdat, 1962, 142 - 170)

TEXT: A survey is given of theoretical and experimental results for reactions with participation of nuclei of mass 2 and 3. Different variants of the theory of stripping are discussed. A series of experiments for checking these variants is proposed. It is noted that further experimental investigation of stripping reactions with participation of nuclei of mass 2 and 3 may give new information for the nuclear spectroscopy as well as for the study of the mechanism of the reactions themselves. See also RZhFiz, 1961, 7B358.

G. Lobov

[Abstracter's note: Complete translation]

Card 1/1

GTRSPL Vol. 5-No. 1 Jan. 1952

Bromova, E.G. and Shapot, V.S. (Institute of Experimental Medicine, U.S.S R. Academy of Medical Sciences). The transformation of unstable phosphorus compounds in the head brain during its anemia, 941-4

Akademiya Nauk, S.S.S R., Doklady Vol. 78, No 5 - 1951

3162. BROMOWICZ J. Klin. neurochir., Krakow. Padaczka w przebiegu guza mózgu i jej wartość lokalizacyjna *Epilepsy in the course of cerebral tumour and its value for the localization* Neurol. Neurochir. Psychiat. pol. 1955, 5/4 (383-396) Graphs 5 Tables 5

466 cases of supratentorial tumours were treated in the course of 7 yr. Epilepsy appeared in 36.5% of these cases. In 21.2% it preceded, sometimes even for many years, other symptoms of tumour. In frontal, temporal and basal nuclei tumours epilepsy is for a long period only an isolated symptom. Benign tumours are a cause of early epilepsy. The character of attacks allows the determination of the localization of the tumour. In basal nuclei tumours the attacks do not differ from those in the frontal motor centre region. Frontal and temporal tumours are often the cause of a commencing loss of consciousness. Night attacks appear mostly in frontal tumours especially at an early period. There is no parallelism between the increase of intracranial pressure and the frequency of the attacks. Herman – Łódź

BROMOWICZ, Jan

Subdural abscess. Neur.&c. polska 8 no.1:69-74 Jan-Feb. '58

1. Z Kliniki Neurochirurgicznej A.M. w Krakowie. Kierownik: prod. dr med. A.Kunicki.

(BRAIN, abscess
subdural, surg., drainage & penicillin ther. (Pol))
(PENICILLIN, ther. use
subdural abscess, after surg. drainage (Pol))

BROMOWICZ, Jan; LISZKA, Oskar; MACIEJAK, Antoni

Neuralgia of the glossopharyngeal nerve. Neur. &c. polska 9 no.4:501-509 Jl-Ag '59.

1. Z Kliniki Neurochirurgicznej A.M. w Krakowie Kierownik: prof. dr A. Kunicki.

(GLOSSOPHARYNGEAL NERVE dis)
(NEURALGIA case reports)

BROMOWICZ, Jan; WEGRZYN, Zbigniew

A case of extensive racemose angioma of the brain. Neurol. etc., polska 11 no.3:397-400 '61.

1. Z Kliniki Neurochirurgii WAM Kierownik: dr med. J. Bromowicz.
(HEMANGIOMA case reports)
(BRAIN NEOPLASMS case reports)

BROMOWICZ, J.; MERT, B.; ZAJGNER, J.

Intraspinal hemorrhage from angioma of the spinal cord in labor. Neurologia etc. polska 11 no.6:858-860 '61.

1. Z Kliniki Neurochirurgii WAM w Lodzi i z Katedry Radiologii WAM w Lodzi.

(LABOR compl) (SPINAL CORD neopl) (HEMANGIOMA in pregn)

SEGAL, Pawel; BROMOWICZ, Jan; ADAMCZEWSKA, Zofia; KHAWCZYK, Zofia; STRZALKO, Mieczyslaw

Obstruction of the carotid artery from the ophthalmological viewpoint. Klin. oczna 31 no.2:117-123 '61.

1. Z Kliniki Chorob Oczu WAM Kierownik: doc. dr med. P.Segal Z Kliniki Neurochirurgicznej WAM Kierownik: kand. nauk med. dr med. J. Bromowicz Z Kliniki Neurologicznej WAM Kierownik: doc. dr med. W. Stein.
(EYE blood supply) (CEREBRAL EMBOLISM AND THROMBOSIS)

BROMOWICZ, Jan
SURNAME, Given Names

Country: Poland

(1)

Academic Degrees: Dr. med.; Candidate in Medical Sciences [Military rank: Major]

Affiliation: Neurosurgical Clinic (Klinika Meurochirurgii), Military School of Medicine (WAM--Wojskowa Akademia Medyczna), Lodz.

Source: Warsaw, Lekarz Wojskowy, Vol 36, No 5, 1961, pp. 445-455.

Data: "Urgent States in Disorders of the Brain Blood Vessels."

301

GPO 981643

BROMOWICZ, Jan; ZAJONER, Jozef

Pathological vascularization of spongioblastoma multiforme in the angiographic picture. Pol. przegl. radiol. 28 no.4: 291-293 Jl-Ag '64.

1. Z Kliniki Neurochirurgicznej Wojskowej Akademii Medycznej w Lodzi (Kierownik: prof. dr med. J. Bromowicz) i z Zakladu Radiologii Lekarskiej Wojskowej Akademii Medycznej w Lodzi (Kierownik: dr med. G. Fialkowski).

BROMOWICZ, Jan; ZAJGNER, Jozef

Angiomas of the spinal cord. Pol przegl. radiol. 28 no.4: 329-334 Jl-Ag '64.

1. Z Kliniki Neurochirurgicznej Wojskowej Akademii Medycznej w Lodzi (Kierownik: prof. dr med. J. Bromowicz) i z Zakladu Radiologii Lekarskiej Wojskowej Akademii Medycznej w Lodzi (Kierownik: dr med. G. Fialkowski).

KIRCHMAYER, Stanislaw; BROMOWICZ, Krystyna

Nocturnal paroxysmal hemoglobinuria. Clinical description of a case. Results of therapy. Quantitative determination of protein in daily urine samples as a diagnostic method. Polskie arch.med.wewnetrz. 29 no.12: 1655-1668 '59.

1. Z II Kliniki Chorob Wewnetrznych A.M. w Krakowie. Kierownik: prof. dr. nauk. med. T. Tempka.

(HEMOGLOBINURIA PAROXYSMAL)

BROMOWICZ, Krystyna; KOSTKOWSKI, Andrzej

A case of fibrinolytic hemorrhagic diathesis in a case of disseminated cancer metastases. Pol. arch. med. wewnet. 32 no.1:19-23 '62.

1. Z II Kliniki Chorob Wewnetrznych AM w Krakowie Kierownik: prof. dr nauk med. Y. Tempka.

(AFIBRINOGENEMIA etiol) (NEOPLASMS compl)

KRUPINSKIY, B., prof. (Pol'skaya Narodnaya Respublika); BROMOVICH, R., inzh. (Pol'skaya Narodnaya Respublika); KSHANOVSKIY, S., inzh. (Pol'skaya Narodnaya Respublika)

Effect of ventilation on the selection of the mine model. Ugol' 36 no.12:48-54 D '61. (MIRA 14:12)

(Mine ventilation)

KRUPIŃSKI, B.; BROMOWICZ, R.; JAWIEN, M.; LEJZEROWICZ, J.

Technological progress in the plan of mining districts. Wiadom gorn 13 no.11:406 N '62.

KRUPINSKI, Boleslaw, prof. dr inz.; BRONOWICZ, Roman, doc. dr. inz.

General principles of designing a mine model under conditions of different mining hazards. Przegl gorn 21 no.1:8-17 Ja '65.

KIRCHMAYER, S;BROMOWICZOWA, K.

Pathogenesis of leukemia in the light of the Krakow authors and own observations. Przegl. lek., Krakow 8 no.1:12-17 1952.
(CIML 22:2)

1. Of the Second Clinic of Internal Diseases (Head--Prof. Tadeusz Tempka, M. D.) of Krakow Medical Academy.

BROMOWICZOWA, Krystyna

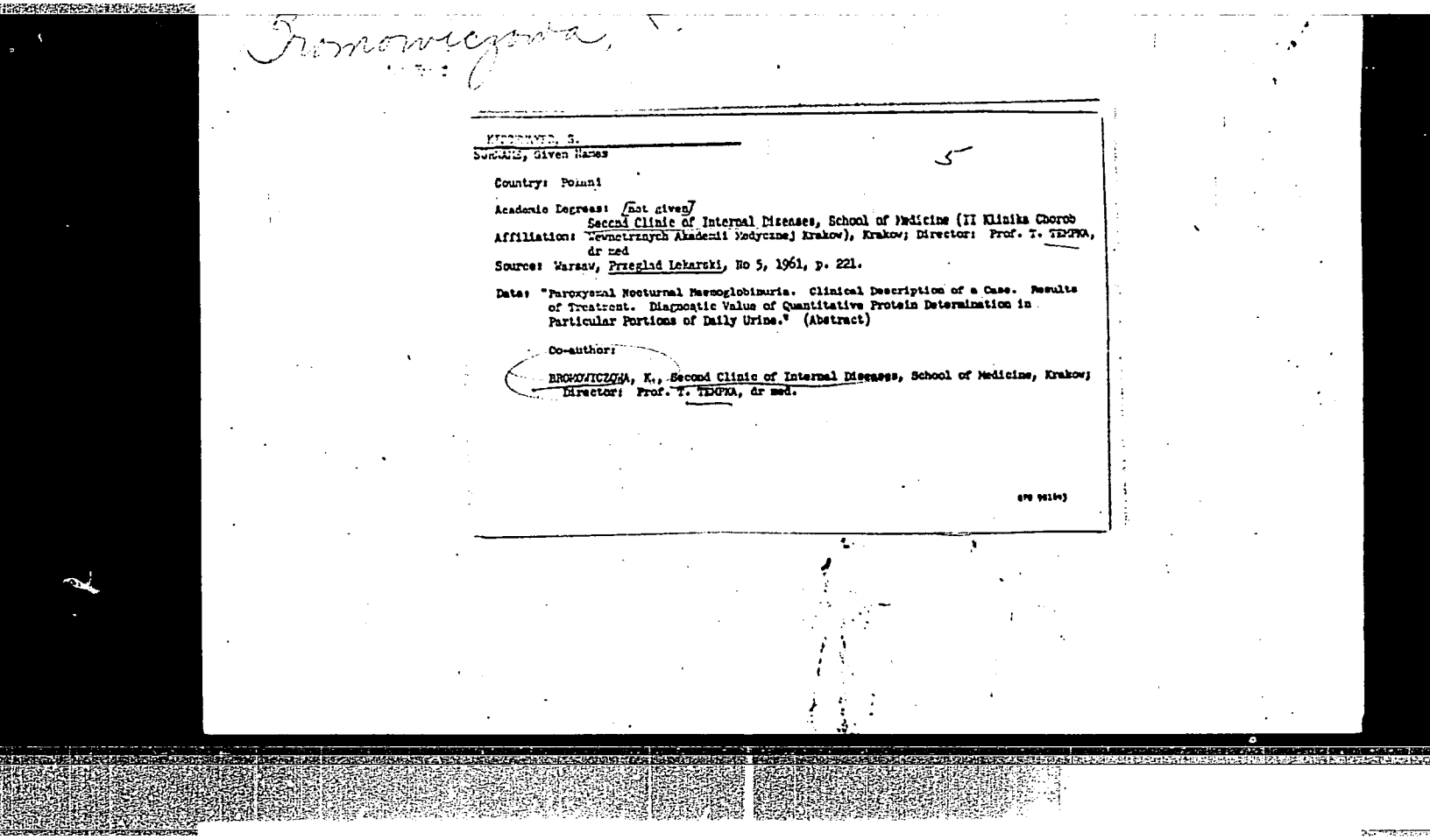
Investigations on specificity of Coomb's test. Polskie arch.med. wewn. 25 no.2:265-269 '55.

1. Z II Kliniki Chorob Wewnetrznych A.M. w Krakowie Kierownik: prof. dr med. T. Tempka. Krakow, ul. b Prusa 35.
(HEMAGGLUTINATION,
Coombs' test. specificity)

KIRCHMAYER, S.; BROMOWICZOWA, K.

New liver function tests based on prothrombin time. Polski tygod. lek. 8 no.25:873-880 22 June 1953. (CIML 25:1)

1. Of the Second Internal Clinic (Head--Prof. T. Tempka, M.D.) of Krakow Medical Academy.



KYSOWSKI, S.

Surname, Given Names

Country: Poland

Academic Degrees: [not given]

Affiliation: Second Clinic of Internal Diseases, School of Medicine (II Klinika Chorob Wewnetrznych Akademii Medycznej Krakow), Krakow; Director: Prof. T. TEMPKA, dr med

Source: Warsaw, Przeglad Lekarski, No 5, 1961, p. 221.

Data: "Paroxysmal Nocturnal Haemoglobinuria. Clinical Description of a Case. Results of Treatment. Diagnostic Value of Quantitative Protein Determination in Particular Portions of Daily Urine." (Abstract)

Co-author:

BROWICZOWA, K., Second Clinic of Internal Diseases, School of Medicine, Krakow; Director: Prof. T. TEMPKA, dr med.

BROMSKI, Henryk (Zgierz, ul. Miedzialkowskiego 24)

Biernacki's reaction in Addison-Biermer's anemia. Polski tygod.lek. 10 no.10:289-293 7 Mar 55.

1. Z III Kliniki Chorob Wewn. A.M. w Poznaniu; kierownik: prof. dr F.Labedzinski.

(ANEMIA, PERNICIOUS, blood in,
erythrocyte sedimentation rate)
(ERYTHROCYTES, in various diseases,
anemia, pernicious, sedimentation rate)

BRON', A.I., mayor med.sluzhby

Apparatus for determining the near point convergence of the lend eye, and binocular vision. Voen.med.zhur. no.12 [illegible] D '57 (MIRA 11:5)
(EYE, INSTRUMENTS AND APPARATUS FOR)

1.1100 also 1413

26888
S/121/61/000/010/001/005
D040/D113

AUTHORS: Ostretsov, G.V., Manuylov, L.K., Bron, A.M., and Chernikov, S.S.

TITLE: Profile errors of rolled gears, and a method for their correction

PERIODICAL: Stanki i instrument, no. 10, 1961, 3-6

TEXT: Thread rolling is being studied and introduced into practical use by a number of Soviet organizations. ENIMS has conducted studies of the hot rolling process with subsequent cold sizing, and cold sizing of milled gears (instead of shaving). The article presents some results of the ENIMS work and detailed information on a method developed for determining profile errors on involute straight tooth rolled gears, and for correcting the rolling gear to produce gears with accurate involute tooth profile. The rolling gear is corrected by corrections made on the grinding wheel. As stated in ENIMS experiments, profile errors on gears produced with rolling gears with nominal profile, i.e. not modified, amount to 0.06-0.08 mm, and the

Card 1/2

Profile errors of rolled gears ....

errors are regular. The profile correction method is explained with the aid of diagrams. The method of correcting the rolling gear depends on the design of the available gear grinders and the wheel dressing attachment. At ENIMS, "584" gear grinders have a dressing device with setting cams that permit the wheel profile to be slightly modified. A calculation diagram illustrates the setting of the diamond dressing device of the "584" grinders. A calculation example is included for a case where a gear with 3 mm module and 45 teeth is rolled using a rolling gear with 94 teeth. Involutograms made by an involute meter show the error produced in rolling with a non-corrected and with a corrected wheel. Errors after correction do not exceed 35 μm. Cold sizing reduces errors to 20-25 μm over the working section of the tooth profile. The method of determining the rolling gear modification for the rear tooth flank is analogous with the modification for the front flank and therefore is not included, but it is pointed out that the curve shape and the angle for the front and rear flanks are not alike, and it is recommended not to reverse rolling. There are 9 figures.

BRON, B. Z.;MAZIAR, T. O.

Possible relationship between poikiloderma and dysfunction of the hypothalamo-hypophyseal region. Vest. vener., Moskva no.5:41-43 Sept-Oct 1951. (CIML 21:1)

1. Departmental Physician Bron; Candidate Medical Sciences Mazyar. 2. Of the Ukrainian Skin-Venereological Institute (Director -- Prof. A. M. Krichevskiy).

BRON, B.Z.; BONDAR', Z.L.

Relation of therapeutic effect of the treatment of lupus erythematosus with krisanol to concentration of the drug in the body. Vest.ven.i derm. no.5:24-25 S-O '53. (MLRA 6:12)

1. Iz Ukrainskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (direktor - professor A.M.Krichevskiy) I Khar'kovskogo oblastnogo vendispansera (glavnyy vrach M.I.Lisin).

(Lupus)

ARLOZOROV, Z.G., doktor med.nauk, BROK, B.Z.

LE factor in the blood [with summary in English]. Probl.gemat. i perel. krovi 3 no.4:27-32 Jl-Ag '58 (MIRA 11:8)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta perelivaniy s krovi i neotlozhnoy khirurgii (dir. - Yu.M. Orlenko), Nauchno-issledovatel'skogo instituta dermatologii i venerologii (dir. - dots. B.A. Zadorozhnyy) i Khar'kovskogo oblastnogo venerologicheskogo dispansera (glavnyy vrach M.I. Lisin).
(LUPUS ERYTHEMATOSUS, DISSEMINATED, LE phenomenon (Rus))

BRON, B.Z.

Dispensary treatment of patients with lupus erythematosus in Kharkov Province. Vest.derm.i ven. no.1:57-59 '62.
(MIRA 15:1)

1. Iz Khar'kovskogo oblastnogo venerologicheskogo dispansera (glavnyy vrach M.I. Lisin).
(LUPUS ERYTHEMATOSUS)
(KHARKOV PROVINCE--HOSPITALS--OUTPATIENTS SERVICE)

BRON, B.Z.; FRISHMAN, M.P.

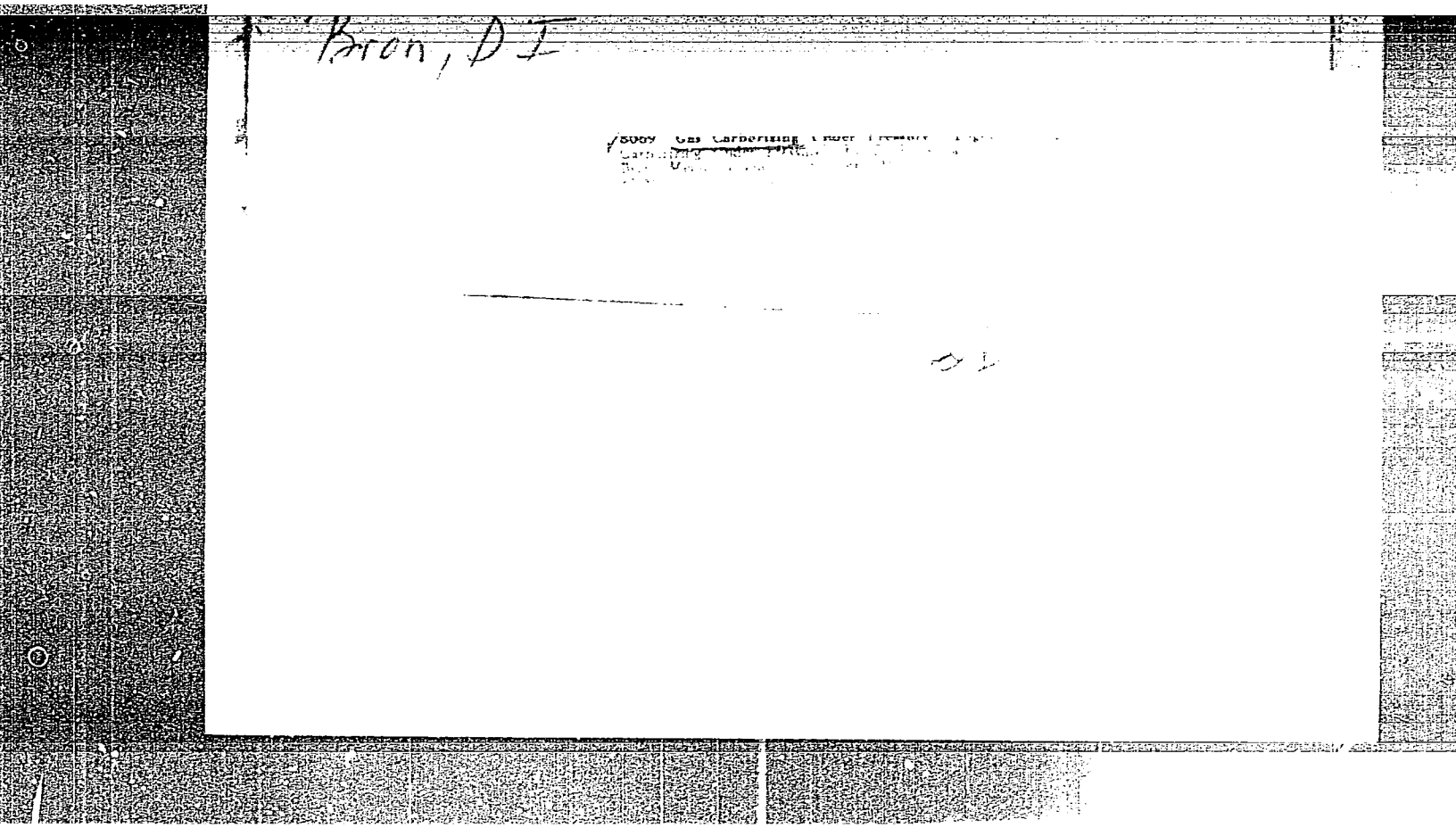
Cadiovascular system in patients with systemic lupus erythematosus. Vest.derm. i ven. 37 no.1:19-22 Ja'63. (MIRA 16:10)

1. Iz Ukrainskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (dir. dotsent A.I.Petikop) i Kar'kovskogo oblastnogo venerologicheskogo dispansera (glavnyy vrach M.I. Lisin).
(LUPUS ERYTHEMATOSUS (CARDIOVASCULAR SYSTEM—DISEASES)

PIROGOVA, O.M.; BOROVSKAYA, V.G.; BAKULINA, K.I.; BRON, B.Z.

Role of some endocrine and metabolic disorders in the pathogenesis and treatment of lupus erythematosus. Vest. derm. i ven. no.2:11-16 '65. (MIRA 18:10)

1. Kozhnyy otdel (zav. A.P.Bazyka) i biokhimicheskaya laboratoriya (zav. N.N.Madiyevskaya) Ukrainskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (direktor - dotsent A.I. Pyatikop), Khar'kov.



S/129/63/000/004/007/014
A004/A127

AUTHORS: Bron, D.I., Rakhshtadt, A.G., Levites, I.I.

TITLE: The effect of thermomechanical treatment on the fatigue strength of 55ХГР (55KhGR) grade steel

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no. 4, 1963, 30 - 31

TEXT: The authors investigated the effect of heat treament and high--temperature thermomechanical treatment on the fatigue characteristics of the 55KhGR spring steel, containing 0.57% C, 0.36% Si, 1.3% Mn, 1.14% Cr, o.057% Ti, 0.5% Ni and 0.0037% B. Flat specimens were tested on the ИРС -2 (IRS-2) machine in regular symmetric load cycles in one plane. It was found that the optimum tempering temperature for this steel grade was 520 - 560°C. High-temperature thermomechanical treatment improves the fatigue characteristics of this steel, the fatigue limit increase amounting to 10% at least, while the limited durability features a reduction of 50% increase by a factor of 9. The optimum tempering temperatures of 55KhGR steel after high--temperature thermomechanical treatment are in the range of 250 - 300°C. If

the tempering temperature exceeds 400°C, the effect of high-temperature thermomechanical treatment is taken off. High-temperature thermomechanical treatment with low degrees of reduction (15 - 25%) improve the fatigue characteristics of the steel in the most effective way at a tempering temperature of 250°C. There are 2 figures and 1 table.

ASSOCIATION: MVTU im Bauman

L 10691-63 EWP(q)/EWT(m)/BDS--AFFTC/ASD--JD
ACCESSION NR: AP3001652 S/0129/63/000/006/0010/0012

AUTHOR: Bron, D. I.; Gruzdov, P. Ya.; Levites, I. I.; Rakhshtadt, A.G. 57

TITLE: The influence of austenization temperature on the kinetics of isothermal transformation of super cooled austenite steel 55 KhGR and 50 KhG

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 6, 1963, 10-12

TOPIC TAGS: 55 KhGR steel, 50 KhG steel, austenization temperature, isothermal transformation

ABSTRACT: The stability of austenite 55 KhGR and 50 KhG steel during the isothermal process increases with that of the temperature of heating. In the intermediate region of the transformation, the stability of cooled austenite increases as the temperature rises to 900C, but decreases as the temperature further increases to 1100C. This is explained by the increasing influence of concentration of thermal vacancies on carbon processes in the austenite. The alloying of chrome manganese steel (with a 0.5-0.6% increase of the carbon contents) with boron sharply increase the stability of cooled austenite and hence the hardenability of steel. Orig. art. has: 2 figures.

Card 1/2

BRON, D.I.; BERNSHTEYN, M.L., doktor tekhn.nauk; KARASHTADT, A.G., kand. tekhn.nauk; LEVITES, I.I.

Hardening 55KhGR spring steel by the method of high-temperature thermomechanical treatment. Avt.prom. 30 no.1:35-38 Ja '64. (MIRA 17:3)

1. Nauchno-issledovatel'skiy tekhnologicheskiy institut avtomobil'noy promyshlennosti, Moskovskiy institut stali i splavov i Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.

GORIN, D.I., kand. tekhn. nauk; BRON, D.I.; TATATUTA, A.I.; LEVITES, I.I.

Effect of high-temperature heat and mechanical treatment on fatigue characteristics of 55C2 and 50KhG spring steels. Avt. prom. 31 no.1:38-39 Ja '64. (MIRA 18:3)

1. Belorusskiy institut mekhanizatsii sel'skogo khozyaystva i Nauchno-issledovatel'skiy institut tekhnologii avtomobil'noy promyshlennosti.

L 23938-65 EWP(k)/EWT(m)/EWP(b)/T/EWA(d)/EWP(w)/EWP(t) Pf-4 IJP(c)/JD/EM
ACCESSION NR: AP5002983 S/0113/65/000/001/0038/0039

AUTHORS: Gorin, D. I. (Candidate of technical sciences); Bron, D. I.; Taratuta, A. I.; Levites, I. I.

TITLE: The effect of high-temperature thermomechanical treatment on fatigue characteristics of 55S2 and 50KhG spring steel

SOURCE: Avtomobil'naya promyshlennost', no. 1, 1965, 38-39

TOPIC TAGS: steel, thermomechanical treatment, fatigue/ 55S2 steel, 50KhG steel

ABSTRACT: This study is aimed at producing better spring steel to increase the life of automobile springs. The authors consider improvement in static and fatigue strength in spring steel to be of fundamental importance in this quest. Investigations were made on seven series of samples treated in the following ways: heated to 950-970C (55S2 steel) and 900-920C (50KhGA steel), single rolling to a reduction of 15%, oil hardening, tempering at 250, 300, and 400C for 1 hour, at 460C for 30 min (55S2 steel) and at 300 and 400C for 1 hour (50KhGA steel). It was found that high-temperature thermomechanical treatment with low deformation (15%) increases the fatigue resistance of 55S2 and 50KhGA spring steels 5 to 22%. The ultimate

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L 23938-65
ACCESSION NR: AP5002983

strength is extended several times. The maximum cyclical strength of the investigated steel, after treatment, is attained with tempering at 300C for 1 hour. Higher temperatures of tempering require correspondingly shorter [illegible]. Increasing the time of holding 55S2 steel after hot deformation, for [illegible] seconds, before hardening has practically no effect in lowering the fatigue resistance. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Belorusskiy institut mekhanizatsii sel'skogo khozyaystva (Belorussian Institute for Mechanization of Agriculture); NIITAvtoprom

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 002 OTHER: 000

Card 2/2

AUTHOR: Bron, O. I., Levites, I. I., Shashina, N. N.

TITLE: Recrystallization of 55KhGR steel during high-temperature treatment

Card 1/2

L 33265-65
ACCESSION NR: AP5005104

but caused collective recrystallization in the critical range [illegible]
formation at 1050-1100C produced collective recrystallization [illegible]
[illegible] The [illegible] and water [illegible]
grain size. The maximal fatigue strength was achieved after recrystallization
treatment, whereas collective recrystallization markedly lowers [illegible]

SUBMITTED: 00 ENCL: 00

NR REF SOV: [illegible] OTHER: [illegible]

Card 2/2

BRON, D.I.

Technological potentialities for the improvement of the quality of motortruck springs. Avt. prom. 31 no.6:34-37 Je '65. (MIRA 18:10)

1. Nauchno-issledovatel'skiy tekhnologicheskiy institut avtomobil'noy promyshlennosti.

L 11161-67 EWP(k)/EWP(h)/EWT(d)/EWT(m)/EWP(l)/EWP(w)/EWP(v)/EWP(t)/ETI IJP(c)
ACC NR: AP6032459 JD/HW (A) SOURCE CODE: UR/0129/66/000/009/0045/0048

AUTHOR: Bron, D. I.; Levites, I. I.

ORG: NIITAVTOPROM

TITLE: The properties of 55KhGR steel after ausforming and requenching

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 9, 1966, 45-48

TOPIC TAGS: mechanical property, metal ausforming, spring steel, metal deformation

ABSTRACT: The authors study the effect of the degree of deformation during ausforming on the strength, yield and fatigue characteristics of 55KhGR spring steel with the following composition: 0.57% C, 1.03% Mn, 0.36% Si, 1.14% Cr and 0.0037% B. Flat specimens were tested on one pass through a laboratory rolling mill. The degrees of reduction were 15, 25 and 50%. The final thickness of the specimens was 4 mm. Three types of heat treatment were used: the first consisted of deformation at 950°C or normal quenching in oil and tempering at 250°C for one hour; the second is the same as the first except that the specimens were tempered at 650°C for one hour and reheated in a salt bath at 270°C for two minutes, quenched in oil and tempered at 250°C for one hour; the third is the same as the second but does not include tempering at 250°C. Specimens for tensile testing were not subjected to mechanical treatment, while those which were intended for fatigue testing were polished and deep cooled.

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UDC: 621.785:539.374

L 11161-67
ACC NR: AP6032459

All tensile testing was done on the "Shopper" 30 ton hydraulic machine. The fatigue tests were done on the NAMI-IRS-2 machine. The results of these tests show that direct ausforming improves the strength and fatigue characteristics of steel by 10%. Maximum strengthening effect is achieved with a 25% reduction. Steel strengthened by ausforming can be retempered by rapid heating after intermediate tempering which partially reduces its strength and improves its plastic characteristics. On the other hand, if low temperature tempering is eliminated during direct ausforming, full recovery of properties during requenching and low temperature tempering of steel strengthened by ausforming is impossible. Orig. art. has: 3 figures.

SUB CODE: 11/ 13/ SUBM DATE: None/ ORIG REF: 004

Card 2/2

BRON, G. B.

Bron, G. B. "Malaria and tuberculosis," Trudy Azerbaydzh. nauch.-issled. in-ta okhrany materinstva i mladenchestva i pediatr. kafedr Azerbaydzh. med. in-ta, Baku, 1949, p. 248-49.

SO: U-3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 17, 1949).

USSR / Microbiology. Microorganisms Pathogenic to Humans and Animals. F-5

Abs Jour : Ref Zhur - Biol., No 20, 1958, No. 90905

Author : Vorob'yev, A. A.; Bron, L. B.
Inst : Not given
Title : Combined Immunization with a Purified Adsorbed Tetanus Toxoid and a Tetravaccine

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiologii, 1957, No 7, 77-84

Abstract : Results are reported on a combined immunization with a purified adsorption in aluminum hydroxide of tetanus toxoid (TT) and a tetravaccine (typhoid-para-typhoid B, Flexner and Sonne dysentery) compared with crude TT in the same combination. Introduction into the combined vaccine of the adsorbed TT instead of the crude did not increase the reactivity of the preparation. The antitoxic

Card 1/2

BRON, L.O.

ENGINEER

Mbr., ZVShS (-1945-)

"Flexible Hoses for Hydraulic Machine Tool Drives," Stanki I Instrument, 16, no.12, 1945

BRON, L.B.

"A New Hydraulic Drive for Work Rotation (on Internal Grinding Machines) at the ZVSHS."
Stanki I Instrument vol. 15, nos. 7-8, 1944

BRON, L.S.

Hydraulic equipment for gripping and conveying devices of machine tools and assembly lines. Stan.i instr. 24 no.7:5-9 Jl '53. (MLRA 6:8)
(Hydraulic machinery)

USSR/Engineering - Machine Tools

Card : 1/1

Authors : Voronichev, N. M. and Bron, L. S.

Title : The automatization of production of components with complicated profiles.

Periodical : Stan. i Instr., Ed. 6, 7 - 14, June 54

Abstract : The Bureau of Design of the Ministry of Machine Tool and Instrument Industry, together with the "Stankokonstruktsya" factory, have designed two types of duplicate-milling machines, (single- and double coordinate) which permit fully-mechanized milling of components with complicated profiles. Description of machines. Illustrations; drawings; diagrams; graphs; tables.

Institution : ...

Submitted : ...

USSR/Engineering - Machine tools

Card 1/1 : Pub. 103 - 1/23

Authors : Bron, L. S.

Title : Hydraulic drives for transmission mechanisms of combination and special machine tools.

Periodical : Stan. i instr. 8, 1-7, Aug 1954

Abstract : The Design Bureau of the Ministry for Machine Construction and Instrument Industry, designed and produced several types of hydraulic drives for transmissions of combination and special machine tools. Data indicating the performance of hydraulic drives with hydraulic boards, type U424, U4244, and U4245, is given, together with the description of operation of machine tools. Drawings; tables.

Institution : .....

Submitted : .....

BRON, L. S.

USSR/ Miscellaneous

Card 1/1 Pub. 103 - 2/20

Authors : Bron, L. S.

Title : Guaranteeing the efficiency of hydraulic drives of lathes

Periodical : Stan. i instr. 26/3, 4-8, Mar 1955

Abstract : The factors affecting the efficiency of hydraulic drives of machines are discussed. Some of these factors were found to be characteristic only for hydraulic drives of certain types of machines. There are many factors which characterize the construction, manufacture and exploitation of the hydraulic equipment of machines and affect the efficiency of these machines and yet are general for many other types of hydraulic equipment. Ways of guaranteeing perfect performance efficiency of hydraulic drives of machines are described. Four USSR references (1951-1953). Graph; drawings; illustration.

Institution : .....

Submitted : .....

BRON, L.S.

Ensuring the good functioning of hydraulic drive in machine tools (conclusion). Stan. i instr. 26 no.4:13-16 Ap '55. (MLRA 8:6)
(Machine tools--Hydraulic driving)

AID P - 5033

Subject : USSR/Engineering

Card 1/1 Pub. 103 - 4/22

Author : Bron, L. S.

Title : Hydraulic drive for feeding mechanisms of small machine tools.

Periodical : Stan. i instr., 4, 14-20, Ap 1956

Abstract : The author describes the use of headstock hydraulic drive for small automatic milling and boring machines (used in production of small component parts for carburetors, sewing machines, typewriters, bicycles, calculating machines, etc.). It has been found that in many instances hydraulic feeding mechanisms are more efficient than mechanically-operated drives and in some instances hydraulic feed is necessary. Eight drawings and 4 photos.

Institution : Interchangeability Bureau of the Ministry of Machine Tool and Apparatus Industry (MS i IP).

Submitted : No date

BRON, L.S.
p. 3

28(1) PHASE I BOOK EXPLOITATION SOV/2702

Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki. Seminar po pnevmogidravlicheskoy avtomatike. 1st, Moscow, 1957

Sistemy, ustroystva i elementy pnevmo- i gidroavtomatiki; /Sbornik/ (Pneumatic and Hydraulic Circuits Devices, and Elements in Automation; /Collection of Papers/) Moscow, Izd-vo AN SSSR, 1959. 233 p. Errata slip inserted. 2,700 copies printed.

Resp. Ed.: M. A. Ayzerman, Doctor of Technical Sciences, Professor; Ed. of Publishing House: A. A. Tal'; Tech. Ed.: T. P. Polyakova.

PURPOSE: This collection of papers is intended for scientific research workers and engineers in the field of design and construction of pneumatic and hydraulic equipment and accessories for automation.

COVERAGE: This collection contains papers read at the Seminar on Pneumatic and Hydraulic Devices for Automation, May 28, 1957. The collection is divided into the following three groups: 1) newly developed pneumatic and hydraulic circuits 2) pneumatic and hydraulic devices, including regulating units, transmitters

Card 1/

and transducers, actuating mechanisms, special-purpose devices, and auxiliary equipment and 3) elements of pneumatic and hydraulic devices for automation, such as controlled and permanent nozzles and diaphragms. No personalities are mentioned. References follow several of the papers.

TABLE OF CONTENTS:

NEWLY DEVELOPED PNEUMATIC AND HYDRAULIC CIRCUITS

Card 2/

PNEUMATIC AND HYDRAULIC DEVICES FOR AUTOMATION

Regulating Units

Transmitters and Transducers

Card 5/

The tendency of certain working fluids toward nozzle and slit clogging is examined. Minimum dimensions of nozzle and slit sections at which the fluid flow rate remain stable are determined. Some practical methods of combating clogging are presented.

Diaphragms

beryllium-bronze diaphragms are presented.

AVAILABLE: Library of Congress

GO/ec
12-23-59

BRON, L. S.

[redacted]

"Hydraulic Equipment of Automatic Assembly Line."

Report presented at the Scientific Seminar on Pnsumo-Hydraulic Automation, 28-29 May 1957, at the Inst. for Automation and Remote Control (IAT), Acad. Sci. USSR

Avtomika i Telemekhanika, 1957, Vol. 18, No. 12, pp. 1148-1150, (author SEMIKOVA, A. I.)

Bron, L. S.

BRON, L.S.

Pumps for automatic lubrication. Stan. i instr. 28 no.10:32-33 O '57.
(Lubrication and lubricants) (Pumping machinery) (MLRA 10:11)

BRON, L.S.; TARTAKOVSKIY, Zh.E.

Limiting the heating of oil in hydraulic drives of automatic machine tools. Stan. i instr. 28 no.12:9-13 D '57. (MIRA 10:12)
(Machine tools--Hydraulic driving)

SOV/121-58-8-4/29

AUTHOR: Bron, L.S.

TITLE: Hydraulic Balancing of Assemblies in Vertical Machine Tools (Gidravlicheskoye uravnoveshivaniye uzlov vertikal'nykh stankov)

PERIODICAL: Stanki I Instrument, 1958, Nr 8, pp 13-15 (USSR)

ABSTRACT: Development work carried out by the First Design Office for Machine Tools (SKB-1 Stankostroyeniya) is reported, concerned with the hydraulic counter-balancing of suspended assemblies in vertical machines. Experimental machines embodying these principles were constructed by the Machine Tool Works (Stankozavod) "Imeni S.Ordzhonikidze". The spindlestock of a unit-built machine tool mounted on vertical slideways is balanced by a hydraulic cylinder supplied from a hydraulic pressure source through a unit incorporating one supply and one return check valve in parallel. Fig 2 shows the unit in cross-section. Fig 3 shows the complete hydraulic circuit using a standard hydraulic control panel, U4244, made by the "Gidroprivod" Works, embodying remote electrical control. When the stop button is depressed, the distribution valve in the

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Hydraulic Balancing of Assemblies in Vertical Machine Tools

control panel prevents the outflow of oil from the balancing cylinder. The piston is adequately sealed by four rubber rings of circular cross-section. Computations show that hydraulic counter-balancing reduces the total weight of built-up machine tools by 15% and their total cost by 3%. The additional power cost depends on the number of working cycles per hour. With a 12 years' ammortisation period, the overall economy referred to the first cost of the machine, is 1.5-4% at 30 cycles per hour and 1-1.5% at 90 cycles per hour. It is difficult to design standard balancing cylinders for both vertical and horizontal spindlestocks. Examples are given where hydraulic counter-balancing cannot be replaced by counter-weights. Fig 4 shows the hydraulic circuit of a special vertical milling machine with hydraulic counter-balancing. The milling head is found most of the time in one of the two extreme positions and complete sealing of the hydraulic piston is not required. Fig 5 shows the stock of a small hydraulic spindle mounted vertically and counter-balanced by oil pressure acting

Hydraulic Balancing of Assemblies in Vertical Machine Tools

directly on the spindlestock sleeve. Fig 6 shows the hydraulic circuit of a vertical component store installed between sections of an automatic production line. The operation of the hydraulic system is discussed showing the acceptance and feeding-on of components. The vertical arrangement, made possible by hydraulic balancing, reduces the floor space required. In some schemes an automatic lock, holding the unit in the oppermost position, can reduce the sealing requirements.

There are 6 figures

BRON, L.S.

Hydraulic drives for turning devices used in machine tools and automatic production lines. Stan. i instr. 29 no.6:16-19 Je '58. (MIRA 11:7)

(Machine tools--Hydraulic driving)

BRON, L.S.

25(1) PHASE I BOOK EXPLOITATION SOV/2383

Akademiya nauk SSSR. Komissiya po tekhnologii mashinostroyeniya

Avtomatizatsiya mashinostroitel'nykh protsessov. t. III: Privod i upravleniye robochimi mashinami (Automation of Machine-building Processes. Vol 3: Drives and Control Systems for Process Machinery) Moscow, Izd-vo AN SSSR, 1959. 370 p. Errata slip inserted. 5,000 copies printed.

Ed.: V.I. Dikushin, Academician; Ed. of Publishing House: D.M. Ioffe; Tech. Ed.: I.P. Kuz'min.

PURPOSE: This book is intended for engineers dealing with automation of various machine-building processes.

COVERAGE: This is the second volume of transactions of the second Conference on Overall Mechanization and Automation of Manufacturing Processes held September 25-29, 1956. The present volume consists of three parts, the first dealing with automation of engineering measuring methods. The subjects discussed include automatic control of dimensions of machined parts, inspection methods for automatic production lines, in-process inspection devices, application of electronics in automating linear measuring processes, and machines for automatic inspection of bearing races. The second part deals with automatic drives and control systems for process machinery; including application of digital computers in the control of metal-cutting machine tools, reliability of relay systems, application of gas-tube frequency converters in the control of induction motor speeds, magnetic amplifiers and their use in automatic systems, hydraulic drives, and ultrasonic vibrators. Part three deals with mechanisms of automatic machines and automatic production lines. The subjects discussed include linkage, indexing, and Geneva-wheel-type mechanisms, friction drives, automatic loading devices, diaphragm-type pneumatic drives, various auxiliary devices for automatic production lines, and methods of design and accuracy of cams. No personalities are mentioned. There are no references.

BRON, L.S.

Hydraulic drives used in automatic production lines. Stan. i instr. 30 no.1:3-9 Ja '59. (MIRA 12:1)
(Machine tools--Hydraulic driving)

BRON, L.S.; TARTAKOVSKIY, Zh.E.; VLADZIYEVSKIY, A.P., doktor tekhn. nauk, prof., red.; BORUSHKOY, I.V., red.; ALEKSEYEVA, T.V., tekhn. red.

[Standardized components of machine-tool units; catalog] Normalizovannye uzly agregatnykh stankov; katalog. Moskva, 1961. 347 p. (MIRA 14:11)

1. Moscow. TSentral'nyy institut nauchno-tekhnicheskoy informatsii mashinostroyeniya. 2. Chlen-korrespondent AN USSR (for Bunin, Odigin). 3. AN USSR (for Starodubov).
(Metallography) (Steel—Heat treatment)

20934
S/117/61/000/002/001/017
A004/A101

15600

AUTHOR: Bron, L. S.

TITLE: High-production unit-head machine tools made of standardized units

PERIODICAL: Mashinostroitel', no. 2, 1961, 1 - 5

TEXT: In his article the author deals with the problem of the composition of unit-head machine tools fabricated by the Moskovskiy stankostroitel'nyy zavod im. S. Ordzhonikidze (Moscow Machine Tool Plant imeni S. Ordzhonikidze) according to designs of the SKB-1. Figure 1 shows a schematic of the composition of a bilateral horizontal unit-head machine tool from standardized units, the machine being intended for the tooling of casings from two sides. The workpiece is fixed in fixture 1 mounted on the middle section 2 of the machine tool, which is composed of beds 3 and 4, power units 5, 6 and 7. The author points out that three types of power standardized units are utilized: automatic power heads 5, non-automatic power heads 6 and power tables 7. The author then describes the functioning and design of an automatic power head as it is illustrated in figure 2. The author then gives a description of a non-automatic power head and points out the expediency of utilizing such power heads on vertical unit-head machine

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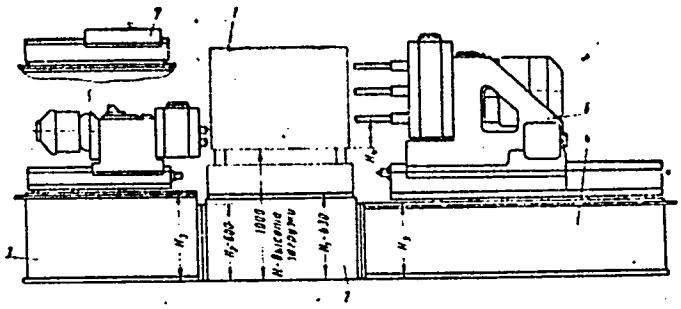
High-production unit-head machine tools ...

tools, since they are lighter than automatic ones and therefore the counter-weights, which are necessary on vertical machine tools, are not so heavy either. Figure 5 shows the kinematic circuit of a non-automatic boring head, which is mounted on unit-head machine tools if it is necessary to combine boring with facing operations. Body 1 with face plate 2 is displaced by cylinder 3 on slides 4. Behind the head a second cylinder 5 is mounted which is connected with carriage 7, face plate 2 and rack and pinion gear 6. The operation of the head is controlled from the hydraulic panel and by an additional switching slide valve mounted on the head. The author then describes the possible versions of fixing the tools to the face plate and presents the basic parameters of the standardized power units, developed by the SKB-1, in the table below. It is emphasized that power units can be mounted on standardized beds only in the case of all types of unit-head machine tools having a common dimension H which determines the loading height of components being machined (Fig. 1). This dimension, which for all machine tools designed by SKB-1 is 1,000 mm, determines height H_1 of the middle section of the unit-head machine tool and height H_2 of the flanges for all bed dimensions. The varying bed height H_3 is chosen in such a way that distance H_4, from the loading plane to the axis of the first spindle, is approximately constant for all power head dimensions. The author describes various versions of the composition of

High-production unit-head machine tools ...

vertical unit-head machine tools without stating any important technical data. There are 14 figures, 1 table and 2 Soviet-bloc references.

Figure 1:



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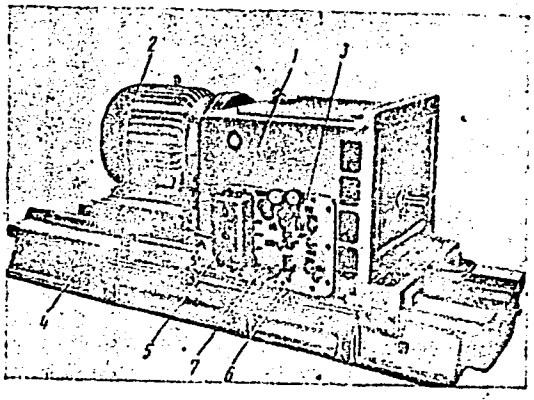
High-production unit-head machine tools ...

Figure 2:

1 - casing; 2 - electro-motor; 3 - hydraulic panel; 4 - slides; 5 - jacket; 6 - stops; 7 - control lever.



Card 4/5

"gh-production unit-head machine tools ...

Table:

1) dimensions of the power units; 2) conventional maximum drilling diameter for steel, in mm; 3) maximum power of electromotor in kw; 4) feed force in kg; 5) maximum travel length in mm;

1) Габарит силового узла	2	3	4	5	6
2) Условный максимальный диаметр сверления по стали в *мм*	25	40	—	—	—
3) Максимальная мощность электродвигателя в *квт*	2,8	4,5	7*	14*	28*
4) Усилие подачи в *кг*	900	1500	2500	5000	11 000
5) Максимальная длина хода в *мм*	400	600	800	1000	1000

* Мощность электродвигателей указана только для силовых головок.

* the electromotor power is indicated for power heads only.

Card 5/5

S/028/61/000/004/001/007
B104/B203

AUTHORS: Bron, L. S., Voronichev, N. M.

TITLE: Normalization of main parameters of machine sets, and their units

PERIODICAL: Standartizatsiya, no. 4, 1961, 7-15

TEXT: Machine sets made in recent years by various firms, e.g., the stankostroitel'nyy zavod imeni S. Ordzhonikidze (Machine-building Works imeni S. Ordzhonikidze) and other enterprises of the Moskovskiy gorodskiy ekonomicheskiy rayon (Moscow Municipal Economic rayon), Ryazanskiy ekonomicheskiy rayon (Ryazan' Economic rayon), Tul'skiy ekonomicheskiy rayon (Tula Economic rayon), and Belorusskiy ekonomicheskiy rayon (Belorussia Economic rayon), had different designs and sizes although they had the same rated capacity. This involves great difficulties in the establishment of production lines, etc. Therefore, it will be necessary to set up unified machine-building standards containing the parameters of unified machine sets. In setting up these standards it should be considered that from time to time production lines have to be rearranged for different

Card 1/3

Normalization of main parameters of...

products. This asks for a reasonable establishment of junction measures for all parts. Also dimension and load series will have to be set up. In the first part of the present paper, the authors discuss typification and dimension series for power units. After detailed deliberations they find that the range of power transmission for power units of medium and large dimensions should lie within 1000 - 10000 kg - force. Two variants are considered for subdividing this range, one with five sizes (variant I) and one with six sizes (variant II). Table 1 gives the first variant of main characteristics for power units. The intermediate values of transmission forces were determined from the series R20/6 ($\varphi_1 = 1.78$); thus, it was necessary to establish the dimensions of power units according to the series $\varphi_2 = \sqrt{\varphi_1}$. In variant II, the transmission forces were determined from the series R20/4 ($\varphi = 1.56$), the dimensions from the series R10 ($\varphi = 1.25$). Subsequently, the authors thoroughly deal with the assembly of machine sets from normalized units. Some examples illustrate the assembly of machines from normalized automatic working units, from non-automatic working units, and from worktables. The authors discuss the proper dimensions of clamping plates and bolts permitting the inter-

changeability of units. They consider the stability of machine sets, suitable building heights, as well as sets with high demands for accuracy of machining.

Table 1: Main characteristics of the power unit. Legend: 1) Size of the power unit; 2) power transmission, kg-force; 3) bore diameter through steel, mm; 4) rated power of the electric motor, kw; 5) operation length.

Основные характеристики силовых узлов Табл. 1

1) Габарит силового узла	2	3	4	5	6
2) Усилие подачи, кгс	1000	1800	3200	5000	10000
3) Условный диаметр сверления по стали в мм (только для силовых головок)	25	40	63	100	160
4) Номинальная мощность электродвигателя в квт (только для силовых головок)	2,2 (3)	4 (5,5)	7,5 (10)	13 (17)	22 (30)
5) Длина рабочего хода, мм	200				
	400	400			
		600	600	600	600
			800	800	
					1000

Card 3/3

BRON, L.S.

Effect of load and temperature on the feed-speed stability of hydraulic power packs of machine-tool units. Stan.i instr. 33 no.8:1-8 Ag '62. (MIRA 15:8)
(Machine tools)

S/876/62/000/000/006/007
E191/E481

AUTHOR: Bron, L.S.

TITLE: Design and layout of hydraulic transmissions for automatic production lines built up of standard units

SOURCE: Proyektirovaniye i ekspluatatsiya avtomaticheskikh liniy mekhanicheskoy obrabotki. Mosk. dom nauchno-tekhn. prop. Ed. by A.P.Vladziyevskiy. Moscow, Mashgiz, 1962. 234-261

TEXT: Hydraulic power is used in automatic production lines built up of standard units for the main spindle feed drives, table feed drives, clamping mechanisms, transporting and loading mechanisms, vibrators for cleaning, inspection mechanisms, electrical program controllers, automatic lubrication pumps and others. In a cylinder head production line for the ZIL motor car engine over 500 hydraulic cylinders are installed. The total installed electrical power of the hydraulic systems exceeds 130 kW. The system contains more than 120 pumps. Hydraulic systems must ensure the sequence and timing of the production cycle. Separate sections must not interfere with other parts of the system.

Card 1/3

Design and layout of hydraulic ...

Servicing and replacements must be easy. Independent control of each mechanism must be possible for resetting. The number of units must be a minimum. Reliability and endurance must be provided and overheating of oil avoided. Hydraulic power components and systems are illustrated and described. The hydraulic system of typical feed mechanisms for standard spindle stocks and tables is discussed in detail. The metering system for feed mechanisms is shown diagrammatically. A standard oil tank is illustrated. The hydraulic system of two feed mechanisms is shown semi-diagrammatically. Hydraulic clamping mechanisms include those with simple clamping, with a sequence of positioning, pre-clamping and final clamping, and with positioning followed by mechanical clamping through wedge action. Pressures may rise as high as 100 atm. Control methods are discussed. Electro-hydraulic control is preferred. The hydraulic transmission for transporters is illustrated and described with emphasis on the braking problem. A graph is given to facilitate the choice of design parameters. A hydraulic rack and pinion rotating actuator is illustrated. Hydraulic actuation of vertical storage magazines between line sections is shown. Hydraulic power used

for inspection and feeler devices is concerned mainly with limiting the feeler effort. The hydraulic system of a shaking vibrator is illustrated and a hydraulic drive for an electrical program controller is discussed. A centralized hydraulic power system for an automatic production line is described with the help of a circuit diagram and a semi-diagrammatic drawing of the hydraulic control panel. An in-line throttling valve and a solenoid actuated control valve are shown. There are 18 figures.

BRON, L.S.; TARTAKOVSKIY, Zh.E.; VLADZIYEVSKIY, A.P., doktor tekhn. nauk, prof., nauchn. red.; GROSMAN, L.A., red.; BONDAREV, M.S., tekhn. red.

[Hydraulic equipment for machine tools in foreign countries; a survey] Stanochnoe gidrooborudovanie za rube hom; obzor. Moskva, 1963. 71 p. (MIRA 16:10)

1. TSentral'nyy institut nauchno-tekhnicheskoy informatsii po avtomatizatsii i mashinostroyeniyu.
(Machine tools--Hydraulic drive)

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Hydraulic drive of power packs of machine-tool units abroad.
Stan.i instr. 34 no.4:28-33 Ap '63. (MIRA 16:3)
(Machine tools--Hydraulic drive)