"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

KOVAL', V.A., inzh.; KRYUCHKOV, I.V., inzh.; LIKHNITSKIY, G.V., inzh.; PODSVYADEK, A.V., inzh.; SPASSKIY, K.F., inzh.

New weighing instruments. Mekh.i avtom.proizv. 15 no.11:46-48 N '61. (MIRA 14:11)

(Scales (Weighing instruments))

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

KOVAL', V.A.; KRYUCHKOV, I.V.; LIKHNITSKIY, G.V.; PODSVYADEK, A.V.; SASSKIY, K.F.

Investigating strain-measuring dynamometers. Priborostroenie no.11:10-11 N '62. (MIRA 15:12)

(Dynamometer)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

BALKOV, P.P.; DASHEVSKIY, T.B.; KOVAL',V.A.; LIKHNITSKIY, G.V.; PODSVYADEK, A.V.

Crane scales equipped with strain gauges. Pribcrostroenie no. 12:27-28 D '60. (MIRA 14:1)

(Strain gauges) (Scales (Weighing instruments))

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODSVYADEK, A.V.

S/119/60/000/012/013/015
B012/B063

AUTHORS: Balkov, P. P., Dashevskiy, T. B., Koval', V. A., Likhnitskiy, G. V., and Podsvyadek, A. V.

TITLE: Electric Crane Weighing Machine With Tensometer

PERIODICAL: Priborostroyeniye, 1960, No. 12, pp. 27-28

TEXT: Odesskiy SKBIM (Odessa SKBIM) and zavod tyazhelogo vesostroyeniya im. Starostina (Plant for the Construction of Heavy-Scales imeni Starostin) have designed a series of electric crane weighing machines for 5, 10, 15, and 30 tons. Fig. 1 is a schematic representation of the tensometer. The elements 4 are elastic quadratic columns made of 40X (40Kh) steel with HCR = 42-45. Two active and two compensating strain gauges are attached to each element. The strain gauges are connected to a bridge shown in Fig. 2. The secondary indicating and recording device is based on an automatic electronic potentiometer of the type ЭПП-09 (EPP-09). Fig. 3 shows the basic circuit diagram of the crane weighing machine. The dial of the device is divided into two ranges in order to increase the accuracy of reading. The maximum permissible error in reading is ± 0.5% of the upper measuring limit. The minimum weighing time is 8 sec. There are 3 figures.

Card 1/3

S/119/60/000/012/013/015
B012/B063

Text to Fig. 1: Schematic Representation of the Tensometer of the Crane Weighing Machine; 1) Hook; 2) Nut; 3) Thrust ring; 4) Load-measuring cell; 5) Lower thrust ring; 6) Cross member.
Text to Fig. 2: Circuit Diagram of the Strain Gauges; 1-4: Load-measuring cells; 5) to the amplifier; 6) Feed of the bridge.
Text to Fig. 3: Basic Circuit Diagram of the Crane Weighing Machine With Tensometer; 1) Strain-gauge bridge; 2) Compensation of the reactive component; 3) Zero adjustment; 4) Control; 5) Rheochord; 6) Reversible motor; 7) Device for stopping; 8) Mains; 9) Adjustment of graduation; 10) Overload.

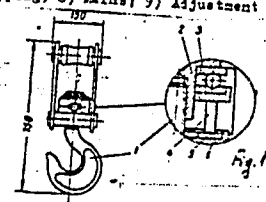

Fig. 1

Card 2/3

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B012/B063

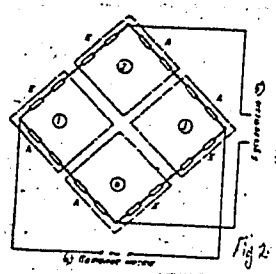

Fig. 2

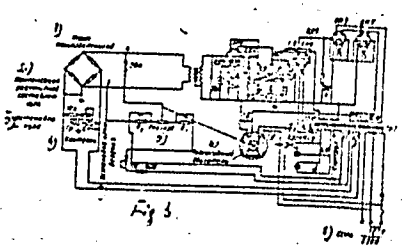

Fig. 3

Card 3/3

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODSYEVALOV, V.N.

21908

Kinyeiika sushki Ryby. Ryb. Khoe-vo, 1949, No. 9, C. 27-43

SO: LETOPIS' NO. 34

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

KOKOTKIN, Vasiliy Ivanovich; PODSYPANIN, Arkadiy Ivanovich; SAVOST'YANOV, D.D.; SIVKOV, M.V.; SKUL'SKIY, S.I.; USAN, A.M., red.; USTIYANTS, V.A., red.

[Design and repair of calculating and punched card machines; perforators, controllers, and sorting machines] Konstruktsiia i remont schetno-perforatsionnykh mashin; perforatory, kontrol'niki i sortiroval'nye mashiny. Moskva, Gosstatizdat. Pt.1. 1963. 166 p. (MIRA 17:8)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

Podsypanin, [illegible] the indeterminate equation [illegible] (Russian) [illegible] N.S. 24 66: 601-603 (1949).

[illegible]

Source: Mathematical Reviews, 1950 Vol 11 No. 2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODSYPANIN V.D.

AUTHOR: PODSYPANIN V.D. (Tula)

TITLE: On the Representation of Numbers by Binary Forms of Fourth Degree (O predstavlenii chisel binarnymi formami chetvertoy stepeni) 39-4-9/9

PERIODICAL: Mat.Sbornik, 1957, Vol.42, Nr.4, pp. 523-532 (USSR)

ABSTRACT: The representation of numbers by binary forms leads to the investigation of the indeterminate equation $f(x,y) = 1$, where f is the form. The author considers the case

$$(1) \qquad f(x,y) = x^4+a_1x^3y+a_2x^2y^2+a_3xy^3+a_4y^4$$

under the usual assumptions that the discriminant of $f(x,1)$ is negative and the Galois group is asymmetric. By the consideration of two-termed unities of a certain subring the author succeeds in developing a method which permits to solve (1) in some cases not considered until now. Furthermore this method permits to solve the unsolved equation $17x^2 - y^4 = 16$ which can be reduced to the equation

$$u^4 + 9u^3v + 24u^2v^2 + 53uv^3 - v^4 = 1.$$

It is stated that $x = y = 1$ and $x = y = 4$ are the single integral solutions of $17x^2-y^4 = 16$. - 8 Soviet and 6 foreign references.

Card 1/1

SUBMITTED: May 21,1956

AVAILABLE: Library of Congress

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

CSUMAKOV, M.P.; VOROSILOVA, N.K.; VASZILJEVA, K.A.; IAKINA, M.N.; ASMARINE, E.E.; DOBROVA, I.N.; DROZDOV, SZ.G.; JANKEVICS, O.D.; PODSZMDLOVSZKIJ, T.SZ.; SZOKOLOVA, I.SZ.; SIRMAN, G.A.; BOJKO, V.M.

Oral mass immunization of the population of the Societ Union against poliomyelitis with live vaccine prepared from attenuated Sabin strains. Orv.hetil. 101 no.4:109-117 Ja '60.

1. Orvostudomanyi Akademia, oliomyelitis Kutato Intezet, Moszkva. (POLIOMYELITIS immunol.)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODSZUS, E.

Podszus, E.

Resistance of boron. Remarks on the work of F. P. Henninger: "Resistance measurements of boron and silicon carbide."

Ann. Physik

Vol. 29, 1937, pp. 61-2

The existence of 2 different modifications of B is not as yet established.

Abstracted in: Chem. Abs., Vol. 31, 4867[2]

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODSZUS, E.

Podszus, E.

The preparation of boron, as well as a few of its compounds with nitrogen and carbon.

Z. anorg. allgem. Chem., Vol. 211, 1933, pp. 41-8

Chem. Abs., Vol. 27, p. 2898

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

KOVAL', V.A.; KRYCHKOV, I.V.; LIKHNITSKIY, G.V.; PODSVYADEK, A.V.; SASSKIY, K.F.

Electronic dynamometer with strain-gauge transmitters. (MIRA 14:12)
Izm.tekh. no.1:16-18 Ja '62.
(Dynamometer)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

GEL'FAND, I.M. (Moskva); DYUDENI, N.Ye. (SShA); KIRILLOV, A.A. (Moskva); ~~PODSYPANIN, V.~~ (Tula); TER-MKRTACHAN, M. (Yerevan); KUZ'MIN, Yu.I. (Moskva); VEYL', G. (SShA); FADDEYEV, D.K. (Leningrad); ARNOL'D, V.I. (Moskva); IVANOV, V.F. (San-Karlos, Kaliforniya, SShA); GRAYEV, M.I. (Moskva); LEBEDEV, N.A. (Leningrad); LOPSHITS, A.M. (Moskva); ZHITOMIRSKIY, Ya.I.; MITYAGIN, B.S. (Moskva); SKOPETS, Z.A. (Yaroslavl'); PUANKARE, A. (Frantsiya); GAVEL, V.V. (Brno, Chekhoslovakiya); SOLOMYAK, M.Z. (Leningrad); LEVIN, V.I. (Moskva); BARBAN, M.B. (Tashkent); FRIDMAN, L.M. (Tula)

Problems. Mat. pros. no.5:253-260 '60. (MIRA 13:12)
(Mathematics--Problems, exercises, etc.)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODSYPANIN, V. D.

On a property of Pythagorean numbers. Izv. vys. ucheb. zav.; mat. no.4:130-133 '62. (MIRA 15:10)

1. Tul'skiy pedagogicheskiy institut imeni L. N. Tolstogo.

(Numbers, Theory of)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

BAKHMUTSKIY, M.A., inzh.; GORBOVETS, M.N., inzh.; PODSYPANIN, Yu.I., inzh.
SHTEYNBERG, A.S., inzh.

Experimental molding equipment with packet vibration. Stroi. i dor. mash. 9 no.3:29-31 Mr '64. (MIRA 17:6)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODSYPANIN, Yu.I.

Intensification of the production of silicate-concrete slabs and increasing the productive capacity of existing equipment. Stroi. mat. 8 no.12:23-24 D '62. (MIRA 16:1)

1. Glavnyy inzh. zavoda zhelezobetonnykh konstruktsiy tresta Kalininstroy.

(Sand-lime products)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODTEKAYEV, A., kapitan, voyennyy letchik vtorogo klassa

Sequence of the shifting of attention. Av. i kosm. 47 no.2:75-76 F '65. (MIRA 18:4)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODTEREBKOV, V.T.; FOMIN, A.S.

Analyzing the dewaxing of the surface equipment. Neftepromyslovoe delo no.12:17-18 '64. (MIRA 18:3)

1. TSekh nauchno-issledovatel'skikh i proizvodstvennykh rabot neftepromyslovogo upravleniya "Aksakovneft'".

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

SHABAROV, Yu.S.; POTAPOV, V.K.; KOLOSKOVA, N.M.; PODTEREBKOVA, A.A.; SVIRINA, V.S.; LEVINA, R.Ya.

Cyclopropanes and cyclobutanes. Part 38: Nitration of 2-substituted phenylcyclopropanes. Zhur. ob. khim. 34 no.9:2829-2832 S '64. (MIRA 17:11)

1. Moskovskiy gosudarstvennyy universitet.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

L 43212-65
ACCESSION NR: AR5007745 S/0299/65/000/002/M019/M019

6
B

SOURCE: Ref. zh. Biologiya. Abs. 2M106

AUTHOR: Podtergerya, V.G.

TITLE: Oxidative processes in the muscles of the amputated limbs of dogs after storage under various conditions

CITED SOURCE: Sb. Materialy 26 i 27 itog. nauchn. sessiy Dnepropetr. med. in-ta za 1962 i 1963 g. Ch. 2. Dnepropetrovsk, 1964, 137-138

TOPIC TAGS: muscle oxygen consumption, oxidative metabolism, preserved muscle, tissue transplant, amputated limb

TRANSLATION: Experiments on 30 dogs showed that when the amputated limb was stored at temperatures of 0-7C, the amount of oxygen absorbed decreased by 40% in 2 hours and by 67-75% in 24 hours. The author considers refrigeration to be a favorable environment for the storage of tissues intended for transplant. N. S.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODTETENEV, G.

POLAND/Iron and Steel 4205.0201 Sep 1947

"Poland's Metallurgical Industry," G. Podtetenev, 2½ pp

"Vnesh Torg" Vol VII, No 9

Average prewar production figures for rolled iron, pig iron, and steel. Average prewar import figures for iron ore, manganese and scrap. Current production capacity of blast furnaces - 850,000 tons per year, of steel foundries - 1,500 tons per year and of rolled iron mills - 835,000 tons per year. Plan for development and reconstruction calls for: Construction of two new blast furnaces, each to produce 600 of pig iron every 24 hours; reconstruction of six manganese furnaces and five rolled iron mills; repair of 30 and

LC 11G27

POLAND/Iron and Steel 4205.0201 (Contd) Sep 1947

construction of eight new rolled iron mills. A table of planned production of open-hearth pig iron, of raw steel and of rolled iron for 1946, 1947, 1948, 1949 and a table showing planned import of iron and export of pig iron and rolled iron during 1947, 1948, 1949.

11G27

LC 11G27

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODTIAGIN, M.E.

PODTIAGIN, M.E. Narodnoe khoziaistvo SSSR, ego dostizheniia i sostoianie v 1924 g., s atlasom diagramm. 2. izd., ispr. i dop. Moskva, Gosizdat, 1924. 42 p.
CSt-H NN DLC: Unclass.

SO: LC, Soviet Geography, Part I, 1951, Uncl.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

Podtiaguine, N. Sur le calcul par groupes des réserves mathématiques dans l'assurance invalidité [illegible]

[illegible] the rate of invalidity respectively the Makeham and Gompertz expressions, [illegible]

Source: Mathematical Reviews, 1950 Vol 11 No. 8

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

BC

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

Kinetics of dehydration of magnesium sulphate heptahydrate. A. S. MIKULINSKI and E. N. PODTOMISCHENKO (J. Phys. Chem. Russ., 1936, 8, [illegible]).—The velocity of dehydration of $MgSO_4,7H_2O$ in an air stream has been measured, at 50—300°. It is assumed that the process proceeds in two stages: $7H_2O \rightarrow 6H_2O \rightarrow 1H_2O$, and that its velocity depends on two consts., the first being that of a chemical reaction and the second that of a diffusion. These consts. are calc., and their logs represented by straight lines as functions of $1/T$. The activation energy of the dehydration is calc. to be 1670 g.-cal. per mol. of H_2O.

E. R.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

POLTINTSCHENKO, P. P.
V. S. JATLOV, Zhur Khim Prom, 1937, 14, 935-939

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

L 10609-66 EWT(d) IJP(c)

ACC NR: AP6001056 SOURCE CODE: CZ/0081/65/090/002/0181/0190

44,55

AUTHOR: Podtjagin, Nikolaj—Podtyagin, N. (Bratislava)

ORG: none

21
B

TITLE: One class of algebraic curves

SOURCE: Casopis pro pestovani matematiky, v. 90, no. 2, 1965, 181-190

TOPIC TAGS: class theory, algebra

16,44,55

ABSTRACT: This article demonstrates that the class of algebraic curves containing all the epicycloids, hypocycloids and rose are rational curves as long as they are closed. A single formula gives the value of the order n of all of them. Orig. art. has: 1 figure and 10 formulas. [JPRS]

SUB CODE: 12 / SUBM DATE: 02Mar64 / ORIG REF: 001 / OTH REF: 001

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2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODTOTOVKA

25910

Kolknozmykh Veterinarnyrh i zhivotnovodchesriru kadrov-vtsentr vnimaniya Peredovya Veterinariya, 1948, No. 8. s. 1-3

SO: Letopis' No. 34

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

Br, Abs

Detection of copper ion. N. A. Tananaev and V. N. Podtschainova (Zavod. Lab., 1940, 9, 168-169).—0.5 mg. of Cu in 1 l. is detected by introduction of CdS into the solution; if [Cu] is not too low, the CdS becomes dark, otherwise it is dissolved in dil. HCl and CuS observed in the residue. If the solution contains Bi, Ag, or Hg in addition to Cu, the ppt. of the sulphides is dissolved in aqua regia and the solution treated with conc. NH_3; 10 mg. of Cu per l. give a blue colour. J. J. B.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

SIZYKH, Glafira Ivanovna; GAVRILOVA, Yuliya Pavlovna; LEONT'YEV, Andrey Pavlovich; CHERNICHKOV, Viktor Stepanovich; KHANDROS, Gersh Moshkovich; ~~PODTSUYEVA, Lidiya Mikhaylovna~~; YANKIN, Sergey Mikhaylovich; GITKOVICH, V.K., inzh., red.; MEDVEDEVA, M.A., tekhn. red.

[Advanced work methods for workers engaged in freight operations] Peredovye metody truda rabotnikov gruzovogo khoziaistva. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1961. 91 p. (MIRA 15:3)
(Materials handling) (Railroads--Freight)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODTYAGIN, Mikhail Yevgen'yevich, prof.; USPENSKIY, A.K., spets. red.; CHELYSHKIN, Yu.G., red.; BALLOD, A.I., tekhn.red.

[Concise couse in higher mathematics; theoretical practical parts] Kratkii kurs vysshei matematiki; teoreticheskaia chast' i praktikum. Moskva, Gos. izd-vo sel'khoz. lit-ry zhurnalov i plakatov, 1961. 286 p. (MIRA 14:9)

(Mathematics)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODTYAZHKIN, V.I.

108 operations for goiter within two years at a rural district hospital. Klin.khir. no.11:62-65 N '62. (MIRA 16:2)

1. Khirurgicheskoye otdeleniye Kamyshlinskoy rayonnoy bol'nitsy Kuybyshevskoy oblasti. Nauchnyy rukovoditel' - dotsent fakul'tetskoy khirurgicheskoy kliniki Kuybyshevskogo meditsinskogo instituta B.V. Anikandrov. Adres avtora: Kamyshla, Kuybyshevskoy oblasti, rayonnaya bol'nitsa.

(GOITER)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODTYAZHKIN, V. I

PODTYAZHKIN, V.I.; IVANOV, S.A.; ABDRAZAKOVA, Kh.K.

Torsion of the pedicle of a dermoid cyst of the left ovary in a nine-year-old girl. Akush. i gin. 33 no.4:117 Jl-Ag '57. (MIRA 10:11)

1. Iz khirurgicheskogo otdeleniya Kamyshlinskoy rayonnoy bol'nitsy (glavnyy vrach V.I.Podtyazhkin) Kuybyshevskoy oblasti.
(OVARIES--TUMORS)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

BUZANOV, I.F., red.; VARSHAVSKIY, B.Ya., red.; ORLOVSKIY, N.I., red.; PODTYKAN, Ya.P., red.; SHEVCHENKO, V.N., red.; POZHAR, Z.A., red.; AREF'YEV, T.I., red.; USHAKOV, A.F., red.; MAKSIMOVICH, A.Ye., red.; SIDOROV, A.A., red.; DANIKOVA, M.G., red.; SERDYUK, B.M., red.; LAPCHENKO, K.P., tekhn. red.

[Basic conclusions of research work in 1959-1960]Osnovnye vyvody nauchno-issledovatel'skikh rabot za 1959-1960 gg. Kiev, Izd-vo UASKhN, 1962. 308 p. (MIRA 16:4)

1. Kiev. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy promyshlennosti. 2. Deystvitel'nyy chlen Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im.V.I.Lenina (for Buzanova).

(Sugar beets--Research)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODTYKAN, YA. P.

20869. Podtykan, Ya. P. Voprosy agrotekhniki sakhanoy svekly pri poseve segmemtirovannymi Klubochkami sbornik nauch rabot (Vsesoyuz. nauch. -issled. in-T sakhar. svekly.) Kiyev - Khar'kov, 1948, s. 152-66.

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

BUZANOV, Ivan Feoktistovich, akademik; VARSHAVSKIY, Boris Yakovlevich; KUZ'MICH, Semen Iovlevich; PODTYKAN, Yakov Petrovich; PRISYAZHNYUK, Prokopiy Fedorovich; USHAKOV, Aleksandr Fedorovich; ONOPRIYENKO, M.M., red.; MANOYLO, Z.T., tekhn.red.

[Growing sugar beets with the least expenditures of labor] Vyrashchivanie sakharnoi svekly s minimal'nymi zatratami truda. Kiev, Izd-vo Ukrainskoi akad.sel'khoz.nauk, 1960. 91 p. (MIRA 13:11)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I. Lenina i Ukrainskaya akademiya sel'skokhozyaystvennykh nauk (for Buzanov).

(Sugar beets)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

BUZANOV, I.F., akademik, nauchnyy sotrudnik, laureat Leninskoy premii; VARSHAVSKIY, B.Ya., nauchnyy sotrudnik; KUZ'MICH, S.I., nauchnyy sotrudnik; PODTYKAN, Ya.P., nauchnyy sotrudnik; PRISYAZHNYUK, P.F, nauchnyy sotrudnik; USHAKOV, A.F., nauchnyy sotrudnik; ONOPRIYENKO, M.M., red.; VIDONYAK, A.P., tekhn.red.

[New technology of sugar beet cultivation] Novaia tekhnologiia vozdelyvaniia sakharnoi svekly. Kiev, Izd-vo Ukrainskoi akad. sel'khoz.nauk, 1961. 27 p. (MIRA 15:4)

1. Kiyev. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy svekly. 2. Vsesoyuznyy nauchno-issledovatel'skiy institut sakharnoy svekly (for all except Onopriyenko, Vidonyak). 3. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I.Lenina i Ukrainskaya akademiya sel'skokhozyaystvennykh nauk (for Buzanov).
(Ukraine—Sugar beets)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODTYKANOV, V.F.

Implement for cutting edges of gypsum plaster boards. Na stroi. Mosk. 1 no.3:22 Mr '58. (MIRA 11:8)
(Building--Tools and implements)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODTYKAYLOV, Yu.

Technical education of the youth. Za rul. 16 no.7:2 of cover Jl '58. (MIRA 11:10)

1. Sekretar' Ryazanskogo obkoma Vsesoyuznogo Leninskogo Kommunisticheskogo soyuza molodezhi.
(Technical education)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODTYKAYLOV, Yu.

Youth at the main line of resistance. Starsh.-serzh. no.6:6 Je '61. (MIRA 14:10)

1. Sekretar' Tselinnogo krayevogo komiteta komsomola. (Virgin Territory)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

2

Kinetics of the dehydration of magnesium sulfate heptahydrate. A. S. Mikulinskii and R. N. Rubinshtein. *J. Phys. Chem.* (U. S. S. R.) 8, 600-8(1936).—Data are given on the rate of loss of water from $MgSO_4 \cdot 7H_2O$ at 50-200°. The values of temp. and of K from the equation K = active surface/$(a - x)^{0.75}$ are 75°, 0.00; 100°, 0.13; 135°, 0.34; 150°, 0.54; 200°, 0.73. The classical diffusion equation is also applicable, giving good consts. It is concluded from the constancy of the consts. that the process consists of two reactions $MgSO_4 \cdot 7H_2O \rightarrow H_2O + MgSO_4 \cdot 6H_2O \rightarrow 5H_2O + MgSO_4 \cdot H_2O$. The energy of activation of the dehydration of magnesium sulfate. A. S. Mikulinskii and R. N. Rubinshtein. *Ibid.* 609-12.—A value of 1070 cal./mol. is obtained and held to indicate that the final stage of the dehydration process is a desorption from a surface mol. F. H. Rathmann

COMMON ELEMENTS

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND LETTER AUTHOR INDEX

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODTYNNYY, I.

Device for adjusting crane beams. Stroitel' no.10:14 O '58.
(MIRA 11:11)

(Cranes, derricks, etc.)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODUARYEV, V.N., kand.tekhn.nauk, dotsent; MAROV, M.Ya., inzh.

Errors in machining on hydraulically controlled machine tools caused by the nonrigidity of the system. Izv.vys.ucheb.zav.; mashinostr. no.11:91-102 '60. (MIRA 14:1)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni N.E. Baumana.

(Machine tools--Hydraulic driving)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

CA

17

Toxic effects of some metals on fish and river crabs. Václav Podubský and Eduard Štělronský (Stát. výz. ústav rybářská a hydrobiol., Vodňany, Czech.). *Sborník Československ. Akad. Zemědělské* 21, 200-22(1948).—Cu is most toxic, then Zn, brass, Fe, and Ni; Al is toxic in waters low in Ca. Cu coated with Zn is slightly toxic; tin and iron coated with Zn are but slightly toxic, and stainless steel, Fe coated with Ni and Cr, and Pb are nontoxic.

Jan Micka

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

CA

Toxic effects of some metals on both small and large water organisms Václav Podubský and Eduard Štědronský (Státní výz. stanice, Vodňany, Czech.). *Sborník Českoslov. Akad. Zemědělské* 23, 209-15(1950); cf. *C.A.* 44, 8008*b*.—Even the smallest amts. of Cu, Zn, and brass in water with fish destroy the minute animal plankton in water as well as the larger animal organisms and make such waters either temporary or permanently unfit for fish culture. The toxic effect of these metals is very pronounced on the larvae of ephemerides while the larvae of chironomids are most resistant. Ian Micka

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

Toxic effects of some metals on the fry of the common pike (Esox lucius), spawn of great maraena (Coregonus maraena Bloch), and spawn of the common trout (Salmo fario). Václav Podubský and Eduard Štědronský (Statní výz. stanice rybár. a hydrobiol., Vodňany, Czech.). *Sborník Českoslov. Akad. Zemědělské* 23, 295-301(1951); cf. *C.A.* 44, 8008*b*.—On pike fry and spawn the toxicity of metals manifested itself in this order: Cu, brass, and Zn. Zn is commonly used in fish hatcheries and has killed all spawn before the hatching time. Fe was harmless. It is possible to avoid losses by properly choosing a suitable material for the equipment and instruments of fish hatcheries and for the transporting vessels. Jan Micka

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

CA

Toxicity of Cicuta virosa L. for fish. Václav Podubský (Státní výz. stanice ryb. a hydrobiol., Vodňany, Czech.). *Sborník Československ. Akad. Zemědělské* 23, 302-13(1951).—The exptl., carried out in aquaria with both cut and whole *Cicuta* rootstocks in different wt. ratios to H_2O (1:50, 1:57.9, 1:100, 1:160), show that cicutoxin is a virulent fish poison. It can be easily extd. from *Cicuta* rootstocks and quickly penetrates into the fish body. It acts on the nervous system, increases the secretion of slime, paralyzes the respiratory organs, and finally fish die with symptoms of suffocation. The most resistant was *Carassus vulgaris*, the least was *Perca fluviatilis*. While the fish poisoning in large ponds with wide *Cicuta* overgrowths is not probable, there is a possibility of poisoning young and delicate fish in small, shallow pond bays contg. large quantities of cut-down *Cicuta*.

Jan Micka

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

Podubsky, V.

Argillaceous schists and kaolinite-montmorillonite clays from some deposits in Bosnia. V. Podubsky. *Geol. Glasnik* (Sarajevo) 1955, 33-41 (Pub. 1956) (English summary). In the Paleozoic schists [illegible] argillaceous schist occur in some places [illegible] at Ljeskovica contain pyrophyllite and illite, while at Bakije they contain mainly halloysite and montmorillonite. In the serpentine at Ljeskovica there are nests of a clay composed chiefly of kaolinite and montmorillonite. Curves of the differential-thermal analyses and analyses by x-ray diffraction are given for each specimen. Owing to contamination the material is not refractory. S. Mihohé

4

1/1

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODUBSKY, V.

"A contribution to the biology of the burbot (Lota lota).", p. 63, (SBORNIK, Vol. 26, #1/2, Feb, 1953, Czechoslovakia)

SO: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress, August 1953, Uncl.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

"Fish spawn's need of oxygen during the hatching.", p. 83, (SBORNIK, Vol. 26, #1/2, Feb. 1953, Czechoslovakia)

SO: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress, August 1953, Uncl.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODUBSKY, VACLAV

Vodni, bazinne a pobrezni rostliny; vyskyt, zivot a vyznam, zvlaste v rybarstvi. Praha, Statni zemedelske nakladatelstvi, 1954. 215 p. (Fresh-water, swamp, and river-bank plants; their occurrence, life, and importance, especially for fisheries.)

DA Not in DLC

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 5, no. 2 February 1956

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODUBSKY, Venceslav

Regional characteristics of the origin and geotectonic position of the gypsum-anhydrite deposits in Bosnia, Hercegovina, and Croatia. Geol glas BiH 7:161-166 '63.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODUFALOV, S.V.

Attachment for automatic winding of jacquard cards on the jacquard card-repeating "Wuerker" make machine. Leh.prom. no.1:23-24 Ja-Mr '65. (MIRA 18:4)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODUFALOV, S.V.

Electric circuit breaker for the stop of the "Tekstima" automatic embroidery machine in case of the upper thread breakage. Tekst.prom. 22 no.3:77-78 Mr '62. (MIRA 15:3)

1. Pomoshchnik mastera vyshival'nogo uchastka Kiyevskoy trikotazhnoy fabriki imeni Rozy Lyuksemburg.
(Knitting machines)(Automatic control)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODUFALYY, T. I.

26556 Sistemy soderzhaniya pochvy i udobreniya v sadakh. Sad i ogorod, 1949, No. 8, s. 9-10.

SO: LETOPIS' NO. 35, 1949

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODUFALYY, T. I.

"Importance of Perennial Legurmes and Grasses for the Control of Chlorosis in Fruit Trees," Sovetskaia Agronomiia, vol. 9, no. 4, 1951. p. 92-94
20 So84

So: Sira-Si-90-53, 15 Dec. 1953

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODUFALYY, T.I.

PODUFALYY4T818 600

1. PODUFALYY, T.I.

2. USSR (600)

"The Significance of Perennial Grasses in Combating Chlorosis of Fruit Trees," Sov Agron, 1951, No. 4.

9. Mikrobiologiya, Vol XX, No. 5, 1951.
[redacted]-W-24635.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODUFALYY, T. I.

"Chlorosis Control of Apple and Pear," Sad i Ogorod, no. 4, 1950, pp. 31-34, 80 Sal3

So: Sira-Si-90-53, 15 Dec. 1953

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

1. PODUFALYY, T. I.

2. USSR (600)

4. Fruit Culture

7. Yearly high yields. Sad i og. no. 9, 1952.

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

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

USOV, A.G., kand.sel'skokhzyaystvennykh nauk; PODUFALYY, T.I., kand. sel'skokhozyaystvennykh nauk.

Obtaining high fruit yields every year. Nauka i pered.op.v sel'khoz. 7 no.9:40-42 S '57. (MIRA 10:10)

1. Krymskaya opytanaya stantsiya sadovodstva.
(Fruit culture)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

BORTSOVA, M.P.; GAMAYUNOVA, P.B.; POPLAVSKAYA, A.V.; SHPICHKO, N.P.; PAVLOV, G.D.; PODUNOVA, A.T.; LOVA, N.I.; ALEKSANDROVA, R.P.; ATARUKOV, A.G.; VOROB'YEVA, Ye.I.; GAN'YANTS, E.M.; GELLER, D.Ya.; PARSHINA, M.A.; FILINA, R.A.; CHUVELYAYEVA, Ye.S.

Selecting demulsifiers for crude oils processed in Groznyi refineries. Trudy GrozNII no.4:17-26 '59. (MIRA 12:9)

1.Groznenskiy neftyanoy nauchno-issledovatel'skiy institut (GrozNII) (for Pavlov, Podunova, Lova).
(Groznyi--Petroleum--Refining)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODUOYSKIY, I. I.

21921. PODUOYSKIY, I. I.
Peredelka prirody sel'skokhozyaystvenugkl zhivotnykh. Nauka i zhizn, 1949, No 6,s. 14-18. - Bibliogr: 12 NAZV.

SO: Letopis' Zhurnal'nykh Statel, No. 29, Moskva, 1949.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

25409 S/122/60/000/012/014/018
A161/A130

1.1100

AUTHOR: Podurayev, B. N., Candidate of Technical Sciences, Docent

TITLE: The durability and strength of carbide tools machining bores with low rigidity and intense vibration

PERIODICAL: Vestnik mashinostroyeniya, no. 12, 1960, 58 - 65

TEXT: The cutting process parameters effect on tools had been studied sufficiently with one exception - the effect of vibration. The article presents the results of an experimental investigation at MVTU im. Bauman (MVTU im. Bauman) with high-speed drilling and boring 6.8 - 40 mm diameter holes in 500 - 1,000 mm deep steel blanks. Forced vibration with a frequency equal to the rpm of the work was inavoidable, but it was stated that natural vibration as well as forced vibration of another frequency can be damped to a minimum. The following causes of forced vibration were observed: uneven work metal hardness in the bore cross section area in drilling, and asymmetry of the bore in boring; some curvature always produced by tools in the bores, and then followed; inaccuracy of cutting edges and their uneven wear. Formulae of vibration from different causes are given, and the vibration initiation illustrated in schematic diagrams. Works by Professor A. F.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

25409 S/122/60/000/012/014/018
A161/A130

The durability and strength of carbide tools...

Sokolovskiy are mentioned where it had been proven that the cutting force at the incision is lower than during established cutting process. The experimental data and calculations confirmed that the vibration amplitude depended mainly on the combinations of the forced and natural vibration frequency, and the worst dynamic cutting conditions occur when the work rpm (cutting speed) coincides with the natural frequency of the system. Selection of cutting speed below or above the resonance improved the cutting process. Detailed observations were conducted in drilling deep 6.8 mm diameter holes with single-sided drills tipped with BK8 (VK8) alloy, at off-resonance speed. The data of laboratory and shop observations prove that the cutting efficiency is higher and tool durability better when the system load passes into above-resonance range and the cutting speed increases, e.g., rpm increase from 3,500 to 5,500 (or from 75 to 118 m/min), raised the work productivity 1.6 times and the accuracy 1.25 times, but the drills durability dropped from 180 to 141 min (or 1.27 times), whilst the work capacity of a single drill rose from 13.8 to 17.2 m. It is estimated that similar results are to be expected in turning long thin shafts. Increased feed per revolution had adverse effect. The physical wear of cutting edges consisted in appearance of pitting spots on the front face of the tool, and convergence of the spots into a larger pit. Wear was fastest on the gauging tip of the drills, B (Fig. 12). It was, therefore, recommended to increase

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

25409 S/122/60/000/012/014/018
A161/A130

The durability and strength of carbide tools...

the φ angles in plan view to 70°. Higher wear on the main face of the drill than on the auxiliary is due to less heat on the auxiliary face. The practice shows that also other causes of carbide drills failure do exist. One is brittle failure from insufficient mechanical strength of the carbide tips. And, as stated from records at a mass production plant, the cutting tip tears off, or the cutting edge and came, or the whole work end of thin 6.8 mm diameter drills, or the stem gets twisted. The optimum drills geometry and cutting conditions stated are given in Table 1 for drilling steel grades: 1) "50A", Brinell hardness number HB 170-217; 2) "45X" (45Kh), Rockwell number HRC 28-30; 3) "50A" with HB 225-315:

	Hole diam. mm	$\varphi°$	$\varphi_1°$	$\alpha°$	$\alpha_1°$	mm	d_0 mm	Taper	rpm	v m/min	s mm/rev	s mm/rev
1)	6.8	70	70	15	15	2.4	0.3	0.3/100	5,500	118	0.022	121.0
2)	6.8	60	60	15	15	2.3	0.2-0.25	0.3/100	3,600	78	0.019	68.5
3)	15.0	65-70	60	15	15	5	-	0.2/100	1,200	60	0.035	42.0

The following recommendations are made: The first condition for good results is high quality of tool and machine setting; VK8 tips must be produced by a specia-

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

25409 S/122/60/000/012/014/018
A161/A130

The durability and strength of carpide tools....

lized plant and checked in accordance with state standard rules; the fluorescent flaw detection method is recommended for checking the brazed joint and the absence of cracks [the Avtomobilnyy zavod im. Likhacheva (Automobile Plant im. Likhachev) has practical experience with this method]. Stress in the welded joint between the stem and the drill end can be relieved by submerging drills into sand heated to 200 - 400°C, straight after welding. Best grinding wheels for VK8 tips are the cup-shaped of "CM1" (SM1), "CM2" (SM2), grit 60, with ceramic bond. The drilling machine for high-speed deep drilling must meet all accuracy standards requirements. Vibration dampers must be used for long thin drills - one stationary damper on the tailstock, and one mobile rest. Special attention must be paid to the shape of the chip that must be easily washed out, and the cutting fluid pressure must be sufficient. In the case of using such drilling in automatic lines, checking of drills on one or two blanks must be made obligatory preliminary to using in the line. There are 14 figures, 2 tables and 6 Soviet-bloc references.

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODURAYEV, V.N., kandidat tekhnicheskikh nauk.

Investigating the rigidity of the system machine tool-parts-tool for boring deep and precise holes. Trudy MVTU no.66:127-174 '55. (MLRA 9:8)

(Drilling and boring machinery)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

SATEL',E.A.; PODURAYEV,V.N.

On the essentials of the physical concept of machine-tool--workpiece--tool system stability. Stan. i instr. 26 no.5: 3-5 My '55. (MLRA 8:8)
(Machine tools) (Balancing of machinery)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

SOV/122-58-5-25/26

AUTHOR: Podurayev, V.N., Candidate of Technical Sciences, Dotsent

TITLE: Inter-Vuz Conference on Technology (Mezhvuzovskaya tekhnologicheskaya konferentsiya)

PERIODICAL: Vestnik Mashinostroyeniya, 1958, Nr 5, p 84 (USSR)

ABSTRACT: An inter-vuz conference took place in January, 1958 at the MVTU (Moscow Technical University) imeni Bauman, devoted to manufacturing problems in the engineering and instrument industries. 22 universities and representatives of research institutes in the main engineering and instrument branches took part. Over 50 papers were read. The following papers were devoted to the state of knowledge of the theoretical foundations of production engineering. "The Basic Trends of Development in Engineering Manufacture" by Satel Ye.A., "The Fundamental Theoretical Problems in the Development of Casting", by Rubtsov, M.N., "Current Problems of Metallurgy and Heat Treatment of Metals" by Sidorin, I.I., Professor, "Accuracy and Interchangeability in Engineering" by Prof. B.S. Balakshin and "Present State of the Theory of Plastic Deformation in Press-forming Manufacture" by Ye.A. Popov, Doctor of Technical Sciences. In these papers, the main attention was devoted to

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Inter-Vuz Conference on Technology

manufacturing methods which could be performed by small, light, universal and economic plants. New production methods capable of improving the life of machine components are needed. The trends of increasing power of machine tools, greater expansion of high-speed manufacturing processes and the need to ensure the greatest precision in manufacture were emphasized. The theory of interchangeability of machine components requires further development primarily in its application to pneumatic, hydraulic and electrical elements. In several papers, the inadequate use made in the theory of manufacturing methods of modern achievements in science was deprecated. Further developments in the several branches of engineering science needed in connection with topical manufacturing problems were indicated. Widespread automation and overall mechanisation of manufacture were discussed in the following papers: "Trends of Development in Automatic Welding" by Nikolayev, G.A., Professor, Corresponding Member of the Academy of Architecture and Building "The Automation of Manufacturing Processes in Engineering" by Prof. G.A. Shaumyan, "The Part Played by Electronics in the Solution of Automation Problems" by Kugushev, A.M., Professor, "The Configuration and Classification of Automatic Production

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SOV/122-58-5-25/26

Inter-Vuz Conference on Technology

Machines and Their Basic Elements" by Prof. S.I. Artobolevskiy, "The Basic Trends of Development in the Theory of Automatic Regulating and Control" by Solodvnikov, A.V. Professor, "The Application of Electronic Devices to the Programme Control of Metal Cutting Machine Tools" by B.V. Anisimov. In the present state of its development, automation must ensure not only an increased productivity of labour but also a high accuracy in the performance of its individual operation and the constancy of its properties in time. Problems of the evaluation of the economic effectiveness of introducing any form of automation under given manufacturing conditions must be further elucidated. The flexibility of automated production should be given attention. The problems set by these developments must be solved to an increasing degree by the methods of automatic electronic regulating and control and by programme control systems.

Card 3/3 1. Industrial Production--USSR 2. Engineering--USSR 3. Instruments --Production

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODURAYEV, V.N.; ZAKHAROV, Yu.G.

Causes of excitation and damping methods of natural vibrations caused by metal cutting. Nauch.dokl.vys.shkoly; mash. i prib. no.1:200-209 '59. (MIRA 12:8)

1. Stat'ya predstavlena Moskovskim vysshim tekhnicheskim uchilishchem im. Baumana.
(Metal cutting--Vibration)

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S/121/59/000/12/002/003

18.8200

AUTHORS: Podurayev, V.N., Zakharov, Yu.Ye.

TITLE: Metal Turning Operations With Vibration Cutting

PERIODICAL: Stanki i Instrument, 1959, No 12, pp 11 - 16

TEXT: The authors point out that the extending application of multi-tool machining makes the problem of eliminating chips from the cutting zone of utmost importance, the more so, as chip breakers and the use of tools with chip-breaking grooves has not shown satisfactory results. Investigations which were carried out from 1957 to 1958 at the MVTU im. Bauman (Moscow Technical College im. Bauman) in the field of lathework with vibration cutting showed that this cutting method ensures reliable chip breaking and, moreover, if applied under optimum conditions, results in an improved machinability, decrease of cutting stresses and increase of tool durability. The tests were carried out with a hydraulic vibration slide (Figures 1 and 2), mounted on the lathe carriage, which, during the longitudinal feed, imparted additional oscillating motion to the tool. The authors describe the cutting conditions and steel grades used during the tests. Stating that one of the fundamental

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Metal Turning Operations With Vibration Cutting S/121/59/000/12/002/003

advantages of vibro-cutting is the fact that finely broken up chips are produced, they point out that the direction of oscillations, their amplitude and frequency are of utmost importance. By experiments it was established that the most effective oscillations are those which coincide with the direction of feed, since in this case not only reliable chip breaking, but also satisfactory precision and surface finish are warranted. It was found during the tests that the necessary pressure on the piston of the operating cylinder should be 40 at. Figure 4 shows the picture of a superposition of the vibration tracks of the tool over the length of involute of the cylindrical surface during the turning with a frequency of f and an amplitude of A, with a constant longitudinal feed of s_0. The involute is given for different ratios between magnitude of perimeter of machined part πD and the sum of wavelengths for the integer number of periods of selected vibrations. One wavelength is $\lambda = vT = \frac{v}{f}$, where v is the cutting speed, T is the oscillation period and f is the oscillation frequency. By presenting pertinent formulae and graphs as results of detailed investigations, the authors state that reliable chip breaking is obtained with all oscillation frequencies which differ from the number of revolutions of the machined part by 10% or more. Concerning machining accuracy, it was found in the course of the investigations

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Metal Turning Operations With Vibration Cutting S/121/59/000/12/002/003

that, compared with ordinary turning, the vibration method does not affect the machining accuracy, which is to a great extent due to the fact that the hydraulic vibration slide possesses the same rigidity as any standard lathe slide. In order to obtain the 6th class surface finish or higher with vibration cutting, it is necessary to pay great attention to the frequency and amplitude of vibration, the cutting conditions and tool geometry. With the aid of various space diagrams and graphs the authors prove that the average height of micro-roughness during vibration turning remains constant and is equal to that of standard lathework. This was confirmed by laboratory and industrial tests carried out by the MVTU. The test data obtained show, moreover, that, if vibration turning is carried out with frequencies which come up to the revolution frequencies of the machined part or are the multiple of this magnitude, this results in a better surface finish than with standard turning. Investigations of the tool durability showed that with vibration cutting no increased wear of the tool cutting edge is taking place, as various factors, enumerated by the authors, tend to reduce the load on the cutting edge. The authors conclude that vibration cutting will be of greatest importance, particularly for automated production process. Eleven sets of graphs, 5 diagrams, 2 photographs, 4 Soviet references.

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PODURAYEV, V.N.: kand.tekhn.nauk, dots.

Durability and strength of hard-alloy cutting tools for machining holes under conditions of low rigidities and intense vibrations. Vest.mash. 40 no.12:58-65 D '60. (MIRA 13:12)
(Metal-cutting tools)

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PODURAYEV, V.N.; DAL'SKIY, A.M., kand. tekhn. nauk, red.; ZAKHAROVA, L.S., ved. red.; PELEKH, M.A., tekhn. red.

[Organization of research work on vibrations caused by machining] Organizatsiia nauchno-issledovatel'skikh rabot po vibratsiiam pri mekhanicheskoi obrabotke. Moskva, Vses. in-t nauchno-tekhn. informatsii, 1961. 64 p. (MIRA 14:11)
(Metal cutting--Vibration) (Engineering research)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

28160
S/122/61/000/009/004/009
D298/D305

1.1100

AUTHORS: Satel', E.A., Honored Scientist and Technologist, Doctor of Technical Sciences, Professor, Podurayev, V.N., Candidate of Technical Sciences, Docent, Kamalov, V.S., Engineer and Bezborodov, A.M. Engineer

TITLE: Technological possibilities and the prospects for applying vibrational machining

PERIODICAL: Vestnik mashinostroyeniya, no.9, 1961, 51-57

TEXT: When high alloy tenacious steel (including heat-resisting and rustproof alloys) is machined, the shavings emerge, as a rule, in compact pieces. Such shavings complicate the operation of automatic metal-cutting machines: subsequent removal and transporting of shavings and their processing are difficult. The methods used at present for breaking them are

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D298/D305

Technological possibilities ...

not universal and reliable. For this reason, the method of vibrational machining has been chosen, as it ensures reliable and stable breaking of shavings irrespective of the materials used. The authors analyze in detail this method and give pertinent diagrams and layouts for it. Particular attention is devoted to the process of machining when vibrations are applied in the direction of the work piece feed. In Figure 1 a layout of a hydraulic vibration support is given; this device permits regulating the vibration frequencies and amplitudes. To excite the vibration a hydraulic motor, type ГГ-В3 (GG-V3) and a DC electric motor with transformer ГЭ-В3 (GE-V3) can be used. For laboratory research, vibrators ГГ-В and ЭГ-В (GG-V and EG-V) are used. They are provided with an auto-vibrating mechanical support having the following characteristics: Vibration frequency 20-100 hertz; vibration amplitude 0.05-1.00 mm. The advantages of this support, as compared to other designs, are

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31437

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D221/D304

1 11 00

AUTHORS: Satel', E.A., Honored Scientist and Technician, Doctor of Technical Sciences, Professor, Podurayev, V.N., Candidate of Technical Sciences, Docent, Tuktanov, A.G., and Suvorov, A.A., Engineers

TITLE: Vibratory drilling of holes in stainless and heat resisting steels

PERIODICAL: Vestnik mashinostroyeniya, no. 1, 1962, 67-70

TEXT: The MVTU imeni Baumana (MVTU im. Bauman) carried out research on vibratory drilling, where the tool receives axial oscillations. This produces small chips which are easily removed so that mechanized feed and automation of the process become feasible. The special vibratory drilling machine increased the efficiency by 2.5 times and prolonged the tool life 3 times when machining nuts in 1Х18Н9Т (1Kh18N9T) steel. The sinusoidal axial oscillations of the drill with an amplitude a and frequency ω distort the usual helical motion of the cutting edge of the

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Vibratory drilling ... D221/D304

tool. The equations of motion of the latter in cylindrical coordinates are $r = \frac{d}{2}$; $\varphi = \omega_n t$; $X_A = v_s t + a \sin \omega_f t$. After some manipulations, Eq. (4)

$$s_t = X_B - X_A = = \frac{s_0}{2} + 2a \cos \frac{\omega_f}{\omega_n}\left(\varphi + \frac{\pi}{2}\right) \sin \frac{\omega_f}{\omega_n} \cdot \frac{\pi}{2}. \quad (4)$$

is obtained which gives the current feed s_t. Analysis of the vibratory drilling has revealed that for a given amplitude the fractioning of the chips is best, when there is a certain ratio between the number of revolutions of the tool and the frequency of vibrations. Similar results are obtained during drilling, characterized by two simultaneously oscillating cutting edges. If during a half-turn of the drill there are k full periods of oscillations and a remaining part of a period l, Eq. (7)

$$s_t = \frac{s_0}{2} + 2a \cos 2(k+l)\left(\varphi + \frac{\pi}{2}\right) \times \sin 2(k+l)\frac{\pi}{2}. \quad (7)$$

In the experiments, the frequency was 200 cycles, n=2800 rpm; the chip

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Vibratory drilling ...

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D221/D304

was broken into about four parts during one revolution of the drill. Motion of the chip in the grooves of the drill is facilitated by reduction of the friction coefficient due to the mechanics of displacement of granulated bodies on vibrating surfaces. The second factor which increases the efficiency, is due to the kinematics of the process of cutting. If the radius of curvature of the cutting edge is commensurate with the thickness of the chip (which is the case in drilling holes of small diameter) there is an intense work hardening of metal. Measurement of torque and axial forces revealed a reduction of the cutting force P_z when the feed increased up to a certain value; further increase of the feed leads to larger forces. The third factor is due to changes in the physical process of plastic deformation caused by a variable load. The speed of the drill is composed of rotational and feed components that are constant, and a superimposed oscillatory part. This results in slight alteration of the machining speed, as well as in marked changes of the cutting angles. Deformation of the metal is then changed, and the chip becomes fractured. This is especially important for stainless and heat resisting steels which are more susceptible to work hardening.

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L 39321-65 EWT(d)/EWT(m)/EWA(d)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)/
EWA(h) Pf-4/Peb JD

ACCESSION NR: AP5007720 S/0121/65/000/002/0023/0025

AUTHORS: Podurayev, V. N.; Suvorov, A. A.

TITLE: Thread cutting with taps in heat resisting steels by means of ultrasonic vibration

SOURCE: Stanki i instrument, no. 2, 1965, 23-25

TOPIC TAGS: machine tool industry, machine shop practice, transformer, vibrator/ UZG 6.3 generator, 2B118 machine

ABSTRACT: A device and technology for cutting threads in heat-resistant steels by means of ultrasonic vibrations are described. Figure 1 on the Enclosure is a sectional view of the cutting device. The apparatus is mounted upon a vertical boring stand (model 2B118) with certain modifications. In Fig. 1, 2 is the frame fastened to the stand, 4 is an elastic vibration transformer and a magnetostricture transformer fastened to the frame, machine nut 1 fixes the removable part of the transformer. A UZG-6.3 generator supplies power to the magnetostrictive transformer. Water at a pressure of 1.5-2.0 atm flows through the frame to provide cooling. The width and thickness of the thread cuts are related to the vibration frequency by the equations $a_z = a_z' + a_z'' \sin \omega t$, $b_z = b_z' - b_z'' \sin \omega t$, where a_z' and b_z' are the

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ACCESSION NR: AP5007720

thickness and width due to vibrational motion, t - time, and ω - vibration frequency. A complete development of the geometric cutting parameters is given and includes equations for vibration speed and for kinematic angle settings for forward and reverse cuts. The method described yielded cleaner thread cuts than conventional methods. Orig. art. has: 5 figures and 10 equations.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 01 SUB CODE: MM, IE

NO REF SOV: 006 OTHER: 000

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L 23480-65 EWT(m)/EWP(t)/EWP(k)/EWP(b) Pf-4 JD

ACCESSION NR: AP5002337 S/0145/64/000/011/0098/0105

14
B

AUTHOR: Grabin, V.G. (Doctor of technical sciences, Professor); Podurayev, V. N. (Candidate of technical sciences); Korotkevich, Yu. N. (Engineer)

TITLE: A blasting installation for investigating ultrahigh speed cutting

SOURCE: IVUZ. Mashinostroyeniye, no. 11, 1964, 98-105

TOPIC TAGS: metal cutting, high speed cutting, cutting tool design

ABSTRACT: The cutting processes presently in use result in specific cutting pressures exceeding the limiting strength of metals by at least 100%. Besides, the available speeds lower the efficiency when cutting newly designed materials, as well as being very costly. New methods are currently being worked out both in the Soviet Union and abroad, such as ultrahigh speed cutting. By this method, the plastic deformation and the heat evolved per unit length of cutting tool motion are lowered. However, the quantity of heat obtained in a certain time increases greatly, worsening the working conditions of the cutting tool. Above a certain speed, however, the temperature begins to drop, becoming the same as for the previously used cutting process. The quantity heat obtained during cutting depends on the energy used for deformation of the cut layer. The decrease in plastic deformation at very high cutting speeds is caused by concentration of the plastic deformation in minute volumes,

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ACCESSION NR: AP5002337

as well as by intensive heating of the contact layers leading to lower forces of friction. The energy sources used for ultrahigh speed cutting are explosives, compressed air, powerful sparks, ignited gases, high flux magnetic density, as well as common electric motors. The present authors designed a special blasting tool with a mounted tool holder. Two of them were used, one for testing and one for measuring the cutting force. Cutting speeds were measured before cutting, at the beginning of cutting and during the cutting process within the limits of 200-1200 m/sec. The obtained shaving was smooth when the cutting speed was increased from 400 to 800 m/sec. The cutting installation designed for the tests was very heavy and it will not be used for practical applications. Powder was used as the source of energy instead of the high explosives employed for stamping. Equations showed that the pressure on the metal depends on the gases obtained during powder blasting and on the cutting deformation energy. An empirical factor was derived for the losses caused by radiation, friction and other reasons. The use of powder for mortars results in speeds which are lower than those needed for ultrahigh speed cutting. However, the installation is of simple design and may be used for machining various parts. The solution of several other problems, including the design of cutting tools, cutting speeds, recharging and return of the press to the initial position, will allow it to be used as an automatic machine tool. Orig. art. has: 5 figures and 1 formula.

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L 20780-66 EWP(k)/EWT(d)/EWT(m)/EWA(d)/EWP(1)/EWP(v)/EWP(t)/EWP(1) MJW/JD

ACC NR: AP6005563 SOURCE CODE: UR/0122/65/000/010/0063/0066

AUTHORS: Podurayev, V. N. (Candidate of technical sciences); Suvorov, A. A. (Engineer); Yaroslavtsev, V. M. (Engineer)

ORG: none

TITLE: Machining of threads in stainless and heat resistant steels by vibrational and impact-impulse methods

SOURCE: Vestnik mashinostroyeniya, no. 10, 1965, 63-66

TOPIC TAGS: steel, threading machine, metalworking, metalworking machinery/ 4Kh12N8G8MFB steel, R18F2M threading machine

ABSTRACT: To improve thread cutting in stainless and heat resistant steels, vibrational and impact-impulse thread cutting tools have been developed at MVTU imeni Baumann. The operation of an electrohydraulic rotational vibrator (A. A. Suvarov and V. I. Yudin. Gidravlicheskoye ustroystvo dlya slozhnogo dvizheniya. Byulleten' izobreteniy, 1961, No. 22) is discussed, and experimental results for cutting M8 x 1.25 nuts out of 4Kh12N8G8MFB steel, using a R18F2M tool under

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various operating conditions, are graphically presented. A simpler impact-impulse device which generates two impacts per revolution was also developed and is shown in Figures 1 and 2. The operation of this device is discussed in detail, and

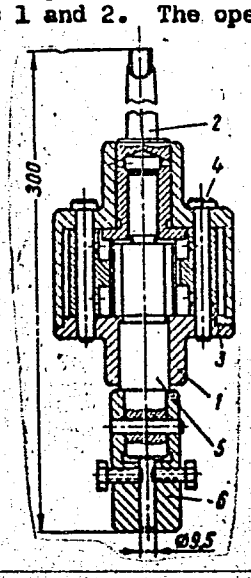

Fig. 1. Impact tool: 1 - body; 2 - shank; 3 - hammer; 4 - pin; 5 - driven shaft; 6 - tool holder.

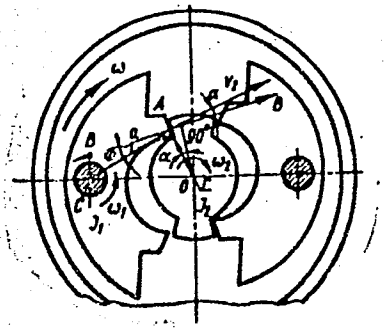

Fig. 2. Section of impact tool: A - impact point.

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ACC NR: AP6005563

operating equations are derived. Tests performed on 4 types of steel (1Kh18N9T, 2Kh13, 38Kh, and EI654) indicate that, under correct operating conditions, tool life is increased 3-3.5 times using the impact thread cutting method. Engineer N. M. Demin participated in the experiments. Orig. art. has: 7 figures, 2 tables, and 16 formulas.

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L 45607-66 EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD

ACC NR: AP6013815 SOURCE CODE: UR/0145/65/000/010/0194/0198 55 B

AUTHOR: Podurayev, V. N. (Candidate of technical sciences, Lecturer); Pastunov, V. A. (Engineer); Veyler, S. Ya. (Doctor of chemical sciences)

ORG: None

TITLE: Coolants as a means for increasing productivity in vibration drilling of stainless and high-temperature steels 18

SOURCE: IVUZ. Mashinostroyeniye, no. 10, 1965, 194-198

TOPIC TAGS: stainless steel, high temperature steel, drilling machine, metal machining, COOLING, MECHANICAL VIBRATION

ABSTRACT: The process of vibration drilling in special media is studied to develop means for increasing the efficiency of this machining method applied to high-temperature and stainless steels and alloys. Coolants containing molybdenum disulfide were used in stability tests of conventional and vibration drilling. The results were compared with those of control tests with coolants ordinarily used for drilling heat-resistant materials in industry. The material tested was EI654 high-temperature steel. Twist drills made from R18 high-speed steel 1.5 mm in diameter were used. The vibration drilling conditions were: spindle speed--1500 rpm, feed--15 mm/min, spindle vibration frequency--125 cps and spindle vibration amplitude--0.01 mm. A microscope was

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

ACC NR: AP6036889 (N) SOURCE CODE: UR/0122/66/000/011/0065/0068

AUTHOR: Podurayev, V. N. (Candidate of technical sciences); Pastunov, V. A. (Engineer)

ORG: none

TITLE: Increasing the efficiency of a vibration drill by the use of active lubricating-cooling media

SOURCE: Vestnik mashinostroyeniya, no. 11, 1966, 65-68

TOPIC TAGS: drilling machine, metal machining, inorganic lubricant

ABSTRACT: The experiments were carried out in the following manner. An aggressive liquid medium of appropriate viscosity is sprayed on the cutting zone. This medium comes into contact with and etches the cutting edges. A neutral solution is then applied. After this, the cutting is stopped. By examining the cutting edges under a microscope, it is possible to determine the boundaries of the etched zone, and the size of the zone in which the liquid or its vapors have penetrated the contact surface. The experiments were made during conventional and vibration drilling of Kh18N9T steel with a straight through cutter made of R18 steel, under the following conditions: $v = 6.7$ meters/min; $t = 2$ mm; $s = 0.2$ mm/rev; vibration frequency $f = 40$ cycles; vibration amplitude $A = 0.2$ mm. The direction of the vibration was along the X-X axis. The aggressive liquid medium was a mixture of oxalic and nitric acids, and the

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neutralizer was a saturated soda solution. The article shows microphotos of the type of the cutter following conventional and vibration cutting under the above conditions. The conclusion from the above preliminary experiments was that, with vibration cutting, it is possible for larger size particles in suspension to penetrate between the cutting tool and the surface being machined. To test the effect of various lubricating and cooling media, tests were carried out on heat resistant steel EI481, using a large variety of such media. As a result of the experiments, the most effective media were found to be those which contained graphite and molybdenum disulfide powders in suspension. Orig. art. has: 2 figures and 1 table.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 001

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

ACC NR: AP7009562

SOURCE CODE: UR/0145/66/000/011/0129/0137

AUTHOR: V. N. Podurayev (Candidate of Technical Sciences; Docent); Sabel'nikov, V. V. (Engineer)

ORG: none

TITLE: Dynamic stability of the tool shaft during ordinary and vibrational drilling of deep holes

SOURCE: IVUZ. Mashinostroyeniye, no. 11, 1966, 129-137

TOPIC TAGS: stainless steel, structure dynamic stability, high temperature steel, drilling machine /Kh18N9T stainless steel

SUB CODE: 13

ABSTRACT: A new method is considered for drilling high-temperature and stainless steel (Kh18N9T) in an operation based on the vibrational of the operation are taken into account, with particular attention to a computation of the dynamic stability of a long, thin tool shaft. The authors also present an engineering method of solving the problem. The article was presented by Professor V. G. Saksel'tsev, of MBTU im N. E. Bauman. Orig. art. has: 4 figures and 9 formulas. [JPRS: 40028]

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ACC NR: AM6025269 Monograph UR/

Podurayev, Viktor Nikolayevich (Candidate of Technical Sciences)

Machining of heat and corrosion resistant materials (Obrabotka rezaniyem zharoprochnykh i nerzhaveyushchikh materialov) Moscow, Izd-vo "Vysshaya shkola," 1965. 518 p. illus., biblio. 6000 copies printed. Textbook for students specializing in machinery and instrument manufacture at institutes of higher learning.

TOPIC TAGS: metal oxidation, heat resistant steel, high strength steel, heat resistant alloy, solid mechanical property, metal machining, high strength alloy, corrosion resistant alloy, wear resistant metal

PURPOSE AND COVERAGE: This textbook is intended for students of schools of higher technical education and may be helpful to those studying the theory of machining processes and respective projects. It may also be useful to staff members of machine-building organizations. The book reviews various types of heat- and oxidation-resistant high-strength steels and alloys, analyzes their mechanical properties and describes various methods of machining them. It explains theoretical principles of machining, outlines wear-resistant tools used in machining, indicates lubricants and coolers employed in machining, and discusses in detail such machining

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PODURAYEV, V.N., kand. tekhn. nauk, dotsent; PASTUNOV, V.A., inzh.; VEYLER, S. Ya., doktor khim. nauk

Lubricating and cooling fluids as means for increasing the productivity in vibratory drilling of stainless and heat-resistant steels. Izv. vys. ucheb. zav.; mashinostr. no. 10: 194-198 '65 (MIRA 19:1)

1. Submitted February 28, 1964.

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PODURAYEV, V.N.; SUVOROV, A.A.

Cutting threads with taps in heat-resistant steels in the presence of ultrasonic oscillations. Stan. i instr. 36 no.2:23-25 F '65. (MIRA 18:3)

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POMURAYEV, V.N., kand.tekhn.nauk; RAGOZIN, Yu.S., kand.tekhn.nauk

Effect of spindle speed on the technological rigidity of the machine-tool-device-cutting-tool-part system. Vest. mashinostr. 44 no.2:65-66 F '64. (MIRA 17:7)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODURAYEV, V.N.; BEZBORODOV, A.M.

Utilization of natural vibrations for chip breaking. (MIRA 16:2)
Stan.i instr. 34 no.1:17-20 Ja '63.
(Metal cutting)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341510020-4

PODURAYEV, V. N., kand. tekhn. nauk, dotsent; MAROV, M. Ya., inzh.

Forced vibrations of hydraulic power heads of automatic lines. Izv. vys. ucheb. zav.; mashinostr. no.7:14-28 '62. (MIRA 16:1)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche imeni Baumana.

(Machine tools—Vibration)

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A004/A126

AUTHORS: Podurayev, Y.N., Bezborodov, A.M.

TITLE: Utilizing natural oscillations for breaking chips

PERIODICAL: Stanki i instrument, no. 1, 1963, 17 - 20

TEXT: Since the various mechanical, hydraulic, pneumatic or electrical methods of producing the necessary vibrations for crushing chips require more or less intricate devices, the authors suggest using for the breaking of chips the natural oscillations originating due to the cutting process. Natural oscillations during the cutting process may be produced 1) by an efficient change of the elastic system machine - workpiece - tool by using special devices, 2) by selecting appropriate cutting conditions and tool geometry with the given system machine - workpiece - tool without any special devices. The authors give a detailed description of both methods, describe a vibrating saddle developed on the basis of investigations carried out by the MVTU im. Bauman, enumerate the factors determining the chip-breaking conditions and point out that the test results obtained prove that this mechanical vibrating saddle ensures reliable chip-breaking during rough turning. There are 6 figures.

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