

S/276/63/000/002/007/052  
A052/A126

**AUTHORS:** Kremenetskiy, I.M., and Mikhaylover, M.V.

**TITLE:** New development in the technology of machining precision elements of guiding apparatus for centrifugal pumps

**PERIODICAL:** Referativnyy zhurnal, Tekhnologiya mashinostroyeniya, no. 2, 1963, 40, abstract 2B156 (Novosti neft. i gas. tekhn. Neft. oborud. i sredstva avtomatiz., no. 6, 1962, 31-32)

**TEXT:** The technological process of manufacturing the blank with allowances and tolerances is described as well as the subsequent machining of an element of the guiding apparatus to the second class of finish. When milling the channels a special face plate is used mounted on the turn table of the machine. The face plate has movable centers and in a number of cases can be common for elements of several dimensions. There are 2 figures.

L. Tsukerman

(Abstracter's note: Complete translation.)

Card 1/1

KREMEZETSKIY, N.D.

OFFENGENDEN, Samuil Rafailovich, kandidat tekhnicheskikh nauk; PAMADIADI, A.D., kandidat sel'skokhozyaystvennykh nauk; TROMBACHEV, S.P., inzhener, [deceased]; YARUSHIN, M.I., inzhener; KREMEZETSKIY, N.D. kandidat sel'skokhozyaystvennykh nauk; KAGAN, G.S., inzhener; NIKOLAYEV, I.G., inzhener; TRUBACHEVA, Ye.G., kul'turtekhnik; SHKLYAREVSKIY, A.I., redaktor; FEDOTOVA, A.F., tekhnicheskiiy redaktor.

[Operation of irrigation and drainage systems] Eksplyuatatsiya gidromeliorativnykh sistem. Pod red. S.R. Offengendena. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1956. 535 p. (MLRA 10:6)  
(Irrigation) (Drainage)

KREMENETSKIY, N. D. and LYAPIN, A. N.

"Reconstruction of Irrigation Network in Cotton Planting Collective Farms of Central Asia," paper presented at the Third International Congress on Irrigation and Drainage, San Francisco, 29 Apr-4 May 1957

C-3,800,020

ZAMARIN, Ye.A., doktor tekhn. nauk., prof.; ZHURAVL'EV, G.I., kand. tekhn. nauk; KOB'EK, S.I., kand. tekhn. nauk; KHEMOM'ESKIIY, N.D., kand. tekhn. nauk; NIKOLAYEV, I.G., inzh., nauchnyy red.; GOLUBEK'KOVA, L.A., red. izd-va; PERSON, M.N., tekhn. red.

[Hydraulic structures in agriculture] Sel'skokhoziaistvennyye gidro-tekhnicheskie sooruzhenia. Moskva, Gos. izd-vo lit-ry po stroit. i arkhit., 1957. 289 p. (MIRA 11:7)

(Hydraulic engineering)

DOBRYNIN, V.P., prof.; OL'SHANSKIY, M.A., akademik, lektor; YELIN, Ye.Ya., dots.; FAT'YANOV, A.S., prof.; GUBAREV, A.N.; TKACHENKO, P.I., dots.; CHIZHEVSKIY, M.G., prof.. lektor; AVDONIN, N.S., prof., lektor; ONUCHAK, A.I., dots.; DUNIN, M.S., prof., lektor; SAVZDARG, E.E., prof., lektor; ~~KREMETETSKIY, N.D.~~, dots., lektor; AVER'YANOV, S.F., dots., lektor; POLUBOYARINOV, I.I., dots.; GUBAREV, A.N., red. izd-va; NAUMOV, K.M., tekhn. red.

[Textbook on agriculture for party schools] Uchebnoe posobie po sel'skomu khoziaistvu dlia partiinykh shkol. Moskva. Pt.1. [Crop farming] Zemledelie. 1958. 397 p. (MIRA 15:1)

1. Kommunisticheskaya partiya Sovetskogo Soyuz. Vysshaya partiynaya shkola. 2. Vysshaya partiynaya shkola pri Tsentral'nom komitete Kommunisticheskoy partii Sovetskogo Soyuz (for Dobrynin, Ol'shanskiy, Gubarev, Tkachenko, Chizhevskiy, Avdonin, Onuchak, Dunin, Savzdarg, Kremenetskiy, Aver'yanov). 3. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Ol'shanskiy).
4. Vysshaya partiynaya shkola pri Tsentral'nom komitete Kommunisticheskoy partii Ukrainy (for Yelin, Poluboyarinov).
5. Gor'kovskaya Vysshaya partiynaya shkola (for Fat'yanov).  
(Agriculture)

SITKOVSKIY, P.A.; KOMAROV, G.V.; BRUSENTSEV, V.F.; KREMENETSKIY, N.N.;  
MAMAYEV, M.G., kand.tekhn.nauk; SMIRNOV, A.V., kand.tekhn.nauk;  
AFANAS'YEV, I.V.; VOLOD'KO, I.F., kand.tekhn.nauk; BEGLYAROV, S.A.;  
KONDRAT'YEV, V.V.; KARLINSKAYA, M.I.; NIKOLAYEV, M.I., kand.tekhn.  
nauk; DOROKHOV, S.M.; PISHCHUROV, P.V.; KLIMENTOVA, A.V.; ROZENBLAT,  
Zh.I.; PANDEYEV, V.V., kand.tekhn.nauk; KULIKOV, P.Ye.; SHIMANOVICH,  
S.V.; DELITSIN, M.V., retsenzent; BRAUDE, I.D., retsenzent; BARYSHEV,  
A.M.; retsenzent; GRIGORYANTS, A.S., retsenzent; IGNATYUK, G.L.,  
retsenzent; KALABUGIN, A.Ya., retsenzent; KREMENETSKIY, N.D.,  
retsenzent; POPOV, K.V., retsenzent; ORLOVA, V.P., red.; LETNEV,  
V.Ya., red.; SOKOLOVA, N.N., tekhn.red.; FEDOTOVA, A.F., tekhn.red.

[Handbook for hydraulic and agricultural engineers] Spravochnik  
gidrotekhnika melioratora. Moskva, Gos.izd-vo sel'khoz.lit-ry,  
1958. 766 p. (MIRA 12:3)  
(Hydraulic engineering) (Agricultural engineering)

KRAMENETSKIY, N. G.

Obrudovanie kursa zoologii, Prakt. rukovodstvo k organizatsii zoologicheskikh laboratorii i kabinetov v pedvuzakh / Equipment for a course in zoology; practical manual on organizing zoology laboratories and work rooms in pedagogical institutes /. 2-e izd. Moskva, Uchpedgiz, 1952. 217 p.

SO: Monthly List of Russian Accessions, Vol. 7 No. 2 May 1954.

KREMENETSKIY, Nestor Grigor'yevich; MARKOV, N.G., redaktor; SMIRNOV, G.I.,  
tehnicheskiiy redaktor

[Practical field manual on the zoology of invertebrates; a textbook  
for students in natural history departments of pedagogical institutes]  
Uchebno-polevaia praktika po zoologii bezpozvonochnykh; posobie dlia  
studentov fakul'tetov estestvoznaniia pedagogicheskikh institutov.  
Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia  
RSFSR, 1956. 146 p. (LIRA 9:12)  
(Invertebrates)



VSESVYATSKIY, B.V., prof.; VIDYAKINA, Ye.M., kand.pedagog.nauk;  
KREMETSKIY, N.G.; SUSLOV, V.V.; MEDVEDEV, L.A., uchitel';  
CHADOVA, K.A.; ROZINA, T.A.

Discussing the curriculum of biology. Biol.v shkole no.6:  
22-27 N-D '59. (MIRA 13:3)

1. Moskovskiy gorodskoy pedagogicheskiy institut (for Vsesvyatskiy).
  2. Mariyskiy pedagogicheskiy institut (for Vidyakina).
  3. Srednyaya shkola No.7 g.Kaliningrada Moskovskoy oblasti (for Kremetskiy, Suslov).
  4. Srednyaya shkola s.Ivanovka Lyuksenburgskogo rayona Orenburgskoy oblasti (for Medvedev).
  5. Kaluzhskiy oblastnoy institut usovershenstvovaniya uchiteley (for Chadova).
  6. Kaluzhskiy pedagogicheskiy institut (for Rozina).
- (Biology--Study and teaching)

*KREMENETSKIY, N.L.*

BARANOV, Boris Aleksandrovich,; ZOLOTOV, Vsevolod Nikolayevich, [deceased],;  
KHISIN, Rafail Iosifovich,; SHAPIRO, Isay Iosifovich,; SHASKOL'SKIY,  
Boris Vladimirovich,; SHAKHNAZAROV, Misheg Mosesovich,; ~~KREMENETSKIY,~~  
~~N. L.,~~ inzh., retsenzent,; TISHIN, S.D., kand. tekhn. nauk, dots., red. ;  
RODZEVICH, S.S., izd. red.; ROZHIN, V.P., tekhn. red.

[Production standards for machinery manufacturing factories]  
Tekhnicheskoe normirovanie na mashinostroitel'nom zavode. Moskva,  
Gos. izd-vo obr. promyshl., 1958. 576 p. (MIRA 11:12)  
(Machinery industry--Production standards)

KREMENETSKIY, N.N.

USSR/Engineering - Hydraulics, Formulas Apr 52

"On New Formulas for the Chezy Coefficient," N. N. Kremenetskiy, Engr

"Gidrotekh Stroi" No 4, pp 41-44

Reviews 2 articles published by Prof Trufanov and Prof Agroskin in "Gidrotekh Stroi" No 2, 1950, and No 2, 1949. Concludes that 3 formulas developed by Prof Trufanov are based on erroneous assumptions and cannot be recommended for practical application. Agroskin's formula  $C = 17.72 (K + \lg R)$  is acceptable for quadratic region of resistances. The scale for K values is presented.

219T30

SITKOVSKIY, P.A.; KOMAROV, G.V.; BRUSENTSEV, V.F.; KREMENETSKIY, N.N.;  
MAMAYEV, M.G., kand.tekhn.nauk; SMIRNOV, A.V., kand.tekhn.nauk;  
AFANAS'YEV, I.V.; VOLOD'KO, I.F., kand.tekhn.nauk; BEGLYAROV, S.A.;  
KONDRAT'YEV, V.V.; KARLINSKAYA, M.I.; NIKOLAYEV, M.I., kand.tekhn.  
nauk; DOROKHOV, S.M.; PISHCHUROV, P.V.; KLIMENTOVA, A.V.; ROZENBLAT,  
Zh.I.; PANDEYEV, V.V., kand.tekhn.nauk; KULIKOV, P.Ye.; SHIMANOVICH,  
S.V.; DELITSIN, M.V., retsenzent; BRAUDE, I.D., retsenzent; BARYSHEV,  
A.M.; retsenzent; GRIGORYANTS, A.S., retsenzent; IGNATYUK, G.L.,  
retsenzent; KALABUGIN, A.Ya., retsenzent; KREMENETSKIY, N.D.,  
retsenzent; POPOV, K.V., retsenzent; ORLOVA, V.P., red.; LETNEV,  
V.Ya., red.; SOKOLOVA, N.N., tekhn.red.; FEDOTOVA, A.F., tekhn.red.

[Handbook for hydraulic and agricultural engineers] Spravochnik  
gidrotekhnika melioratora. Moskva, Gos.izd-vo sel'khoz.lit-ry,  
1958. 766 p. (MIRA 12:3)  
(Hydraulic engineering) (Agricultural engineering)

KREMENTSKIY, N.M., kand.tekhn.nauk

Certain defining improvements in the theory of the expansion of  
submerged jets. Nauch.zap. MIIVKH 20:174-179 '58. (MIRA 13:6)  
(Hydrodynamics)

BOBCHENKO, I. Ya., "BIBIK, V. S.

Emulsions

Gelatinized emulsions. 10. Homogenization in capillaries. Koll. zhur. 14 no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1952 ~~1953~~, Uncl.

KREMENEV, L. Ya.; TAUBMAN, A. B.; NATANSON, E. M.; LEVICH, V. G.;

"The resistance of emulsions and suspensions in connection with the stabilizing action of structure-mechanical properties of protective surface layers,"

Report presented at the Fourth All-Union Conference on Colloidal Chemistry, Tbilisi, Georgian SSR, 12-16 May 1958 (Koll zhur, 20,5, p.677-9, '58, Taubman, A.B)





KREMPNOVA, J.; SKALICHOVA, C.; LANGOVA, J.; REISENAUER, R.

A contribution to the study of endemic goiter. I. A comparative study of the psychology of persons from 2 regions with endemic goiter in Bohemia. Cas. lek. cesk. 104 no.12:315-323 26 Mr'65.

1. Vyzkumny ustav endokrinologicky v Praze (reditel: doc. dr. K. Silink, DrSc.); Psychiatricka klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta: prof. dr. V. Vondracek, DrSc.) a Foniaticke oddeleni fakultni nemocnice v Praze (veduci: prof. dr. M. Seeman, DrSc.).

CZECHOSLOVAKIA

UDC 616.28-008-1:616.21-007-009.8-036.21

KREMENOVA, J.; BLAHA, K.; HLAVAC, J.; REISENAUER, R.; Research Institute of Endocrinology (Vyzkumny Ustav Endokrinologicky), Prague, Chief (Prednosta) Docent Dr K. SILINK; Otolaryngological Department, Polyclinic of the Faculty Hospital (Otolaryngologicke Oddeleni Polikliniki Fakultni Nemocnice), Prague, Head (Vedouci), Docent Dr K. ZEMAN

"Contribution to the Investigation of Endemic Degeneration. IV." Prague, Casopis Lekarů Ceských, Vol 106, No 7, 17 Feb 67, pp 187 - 193

Abstract [Authors' English summary modified]: Investigation of the incidence of impaired hearing and morphological anomalies of the ENT system in endemic degeneration showed the following: In the group of the Policka area more disorders of the ENT system were found than in the Sedlcany area. Outstanding was the incidence of deafmutism accompanying cretinism, and the incidence of cleft palate and lip. Morphological anomalies of the face were more frequent in the Sedlcany area. Gothic palates in impaired development of facial bones were frequent. In manifest cretinism perceptive hearing disorders were frequent in both groups. 4 Figures, 11 Tables, 12 Western, 7 Czech references. (Ms. rec. 1/1)

KREMENOVA, J.; BLAHA, K.; LANGOVA, J.; Research Institute of Endocrinology (Vyzkumny Ustav Endokrinologicky), Prague, Chief (Prednosta) Docent Dr K. SILINK; Otolaryngological Department, Faculty Polyclinic (Otolaryngologicke Oddeleni Polikliniki), Prague, Head (Vedouci) Docent Dr K. ZEMAN; Phoniatic Clinic (Foniaticka Klinika), Prague, Chief (Prednosta) Prof Dr M. SEEMAN.

"Contribution to the Study of Endemic Degeneration. V." Prague, Casopis Lekarů Ceských, Vol 106, No 9, 3 Mar 67, pp 239 - 243

Abstract [Authors' English summary modified]: 3 siblings in the area of Sedlcany with congenital perceptive hearing disorders and impaired intelligence were examined. The parents showed signs of severe thyreopathy; clinical signs of degeneration were not observed in the children; neither was Pendred's syndrome. 11 Figures, 2 Western, 5 Czech references. (Manuscript received Mar 66). 1/1

SKALICKOVA, O.; BREZINOVA, V.; KREMENOVA, J.; REISENAUER, R.

Mentality and psychopathological manifestations of endemic degeneration. Cesk. psychiat. 58 no.5:304-311 0 '62.

1. Psychiatricka klinika fak. vsech lek. Ustav endokrinologicky a otolaryngologicke oddeleni fak. nemocnice, Praha.

BLAZEK, K.; KREMENOVA, J.

Eye findings in endemic degeneration. Cas. lek. cesk. 104  
no.5:130-135 5 F'65.

I. I. oční klinika fakulty všeobecného lékařství v Praze  
(prednosta : prof. dr. E. Dienstbier, DrSc.) a Vyzkumny  
ustav endokrinologicky v Praze (reditel: doc. dr. K. Silink).

SKALICKOVA, O.; JEZKOVA, Z.; KREMENOVA, J.

Contribution to the study of endemic goiter. III. The presence of tissue antibodies in people from areas of endemic goiter. Cas. lek. cesk. 104 no.15:415-418 16 Ap'65.

1. Psychiatricka klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta: prof. dr. V. Vondracek, DrSc.); Ustav hematologie a krevni transfuze v Praze (reditel: prof. dr. J. Horejsi, DrSc.); a Vyzkumny ustav endokrinologicky v Praze (reditel: doc. dr. K. Silink, DrSc.).

REISENAUER, Roman; KREMENOVA, Jirina; SVOBODOVA, Hana

Contribution to the study of the relation of endemic degeneration to prosperity and school attendance in the youth of Czechoslovakia and Moravia. I. Retarded pupils in a general primary school. Cas. lek. cesk. 101 no.28:864-870 13 J1 '62.

1. Vyzkumny ustav endokrinologicky v Praze, prednosta doc. dr. K. Silink.  
(LEARNING) (GOITER epidemiol) (ECONOMICS)  
(MENTAL DEFICIENCY etiol)

REISENAUER, Roman; KREMEŇOVA, Jirina; SVOBODOVA, Hana

Contribution to the study on the relationship between endemic degeneration and school attendance and success among Czech and Moravian children. II. Students of special schools and students not under obligatory attendance rules. Cas. lek. cesk. 101 no.32/33:1016-1020 17 Ag '62.

1. Vyzkumny ustav endokrinologicky v Praze, prednosta doc. dr. K. Silink.  
(SCHOOL HEALTH) (MENTAL DEFICIENCY) (GOITER)

KREMENOVA, Jirina; REISENAUER, Roman; SVOBODOVA, Hana

Contribution to the study on the relationship between endemic degeneration and school attendance and success among Czech and Moravian children.  
III. Comparison of historical findings with data from the period of 1958-1960. Cas. lek. cesk. 101 no.37:1110-1113 14 S '62.

1. Vyzkumny ustav endokrinologicky v Praze, prednosta doc. dr.  
K. Silink.

(SCHOOL HEALTH)

(GOITER)

KREMENEVA, L.

Collective farm market; a report in pictures. Zdorov'ie 9  
no.10:16-17 0'63 (MIRA 16:12)



KREMENNOY, G.G.

Protection of workers and safety measures at enterprises of the  
petroleum and gas industry of Sakhalin. Vop. travm. i ortop.  
no.13:18-22 '63. (MIRA 18:2)

1. Glavnyy inzhener ob"yedineniya "Sakhalinneft'".

AFANAS'YEV, A.F.; KLEKHICHEV, V.A.; KOZLOV, A.I.; KHEMENNY, G.I.;  
KUTUKOV, A.I.

Sakhalin petroleum. Neft. khoz. 42 no.9/10:84-88 S.O '54.  
(MIRA 17:12)

KREMEŇOVÁ, J.; SKALICKOVÁ, O.; SILINK, K.

Contribution to the study of endemic goiter. II. Genetic factors in areas with endemic goiter and their endocrine and psychiatric effect. Cas. lek. cesk. 104 no.13:342-348 2 Ap '65

1. Vyzkumny ustav endokrinologicky v Praze (reditel: doc. dr. K. Silink, DrSc.) a Psychiatricka klinika fakulty vseobecneho lekarstvi Karlovy University v Praze (prednosta: prof. dr. V. Vondracek, DrSc.). 2. V. Kremenoova's address: Praha 2, Narodni tr. 8.

*KREMENSHTEYN, L. I.*

KORENYAKO, A.S.; KREMENSHTEYN, L.I.; PETROVSKIY, S.D.; OVSIYENKO, G.M.;  
BAKHANOV, V.Ye.; GARF, S.E.; LEUTA, V.I., inzhener, vedushchiy  
redaktor; RUDENSKIY, Ya.V., tekhnicheskiy redaktor

[Theory of mechanisms and machinery; manual for courses in designing]  
Teorifa mekhanizmov i mashin; rukovodstvo po kursovomu proektirova-  
niyu. Kiev, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroit.  
lit-ry, Ukrainskoe otd-nie, 1954. 139 p. (MLRA 7:11)  
(Machinery) (Mechanics)

KREMENSHTEYN, L.I. (Kiyev)

Elements of practical instruction in the teaching of mathematics.  
Mat. v shkole no.6:38-40 N-D '54. (MLRA 7:11)  
(Mathematics--Study and teaching)

KORENYAKO, Aleksandr Stepanovich; KREMENSHTEYN, Lev Isaakovich;  
AFONINA, G., redaktor; CHOMACHENKO, T., redaktor; PISARENKO,  
V., tekhnicheskii redaktor.

[Theory of mechanisms and machines] Teoriia mekhanizmov i  
mashin. Izd. 2-oe, perer. i dop. Kiev, Gos.izd-vo tekhn.lit-ry  
USSR, 1955. 574 p. (MLRA 9:1)  
(Mechanics, Applied)

SOV/124-57-4-3947

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 4, p 14 (USSR)

AUTHOR: Kremenshteyn, L. I.

TITLE: On the Construction of the Function  $\omega(\phi)$  for a Steady-state Motion Without Investigation of the Acceleration Characteristics of the Machine [O postroyenii funktsii  $\omega(\phi)$  dlya ustanovivshegosya dvizheniya bez issledovaniya etapa razgona mashiny]

PERIODICAL: Tr. Kiyevsk. tekhnol. in-ta legkoy prom-sti. 1955, Nr 7, pp 150-160

ABSTRACT: The author examines an approximate method for the determination of the steady-state motion of a machine, which method requires no investigation of the acceleration characteristics of the machine. The method is described with reference to a case in which the excess reduced moment is a function of the rotational angle of the driving link. The method described in the paper under review is also applicable in case the driving moment is a diminishing function of its angular velocity, but an indirect investigation of the acceleration process is then required.

Card 1/1

S. G. Kislitsin

KORENYAKO, Aleksandr Stepanovich; KREMENSHTEYN, Lev Isaakovich; PETROVSKIY, Sergey Dmitriyevich; OVSIYENKO, Grigoriy Mikhaylovich; BAKHANOV, Vasilii Yefimovich; LEUTA, V.I., inzh., red.; RUDENSKIY, Ya.V., tekhn.red.

[Theory of mechanisms and machines; manual for the course in designing] Teoriia mekhanizmov i mashin; rukovodstvo po kursovomu proektirovaniu. Pod red. A.S.Koreniako. Izd.2., dop. i perer. Kiev, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1956. 206 p. (MIRA 12:3)

(Mechanical engineering)

(Machinery)



KREMENSHTEYN, L.I.

Determining the law of motion for machine units subjected to forces depending on position and speeds. Prikl.mekh.2 no.4:451-455 '56.

(MLRA 10:3)

1. Kiiva'kiy tekhnologichnyy institut legkoi promislovosti.  
(Machinery, Kinematics of)

KREMENSHTSEYN, L. I., kand. tekhn. nauk

Mechanism of needles used in the 25 PMZ-type button-hole making machine. Izv. vys. ucheb. zav.; tekhn. leg. prom. no. 3:126-129 '58. (MIRA 11:10)

1. Kiyevskiy tekhnologicheskii institut legkoy promyshlennosti.  
(Sewing machines)

KREIENSHTEYN, L.I.(Kiev)

Determining the motion law of a machine and the moment of inertia of a flywheel associated with forces and masses depending on position, velocity, and time [with summary in English]. Prikl. mekh. 4 no. 2:192-196 '58. (MIRA 11:8)

1. Kiivs'kiy tekhnologichniy institut legkoi promislouostsi  
(Mechanics)

KREMONSHTEYN, L.I., dotsent, kand.tekhn.nauk; KOBZSKAYA, V.S.,  
assistant; ZHEZHERA, G.P., assistant

Kinetostatic calculation of the needle mechanism of the  
class-25 PMZ looper. Izv.vys.ucheb.zav.; tekhn.prom. no.2:  
98-101 '59. (MIRA 12:10)

1. Kiyevskiy tekhnologicheskii institut legkoy promyshlennosti.  
(Textile machinery)

KREMENSHTM'N, L.I., dotsent, kand.tekhn.nauk

Designing cam mechanisms for the machinery of light industry.

Izv.vys.ucheb.zav.; tekhn.log.prom. no.6:119-125 '59.

(MIRA 13:5)

1. Kiyevskiy tekhnologicheskoy institut legkoy promyshlennosti.

Rekomendovana kafedroy mekhaniki i teorii mekhanizmov i mashin.

(Cams)

KREMENSHTYN, L.I.

Selecting number of gear teeth for planetary mechanisms, Stan. 1  
instr. 30 no.1:22-23 Ja '59. (MIRA 1:1)  
(Gearing)

KORENYAKO, Aleksandr Stepanovich; ~~KREYNSHTEYN, Lay Isaakovich;~~  
PETROVSKIY, Sergey Dmitriyevich; OVSIYENKO, Grigoriy  
Mikhaylovich; BAKHANOV, Vasily Yefimovich; KROLEVETS, M.S.,  
dotsent, kand.tekhn.nauk, retsenzent; PILIPENKO, Yu.P.,  
red.; GORNOSTAYPOL'SKAYA, M.S., tekhn.red.

[Project work for course credit in the theory of mechanisms  
and machines] Kursovoe proektirovanie po teorii mekhanizmov  
i mashin. Izd.3., dop. i perer. Pod red. A.S.Korenisko.  
Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry,  
1960. 259 p. (MIRA 14:3)  
(Mechanical engineering)

KREMENSHTEYN, L.I., kand.tekhn.nauk, dotsent

Improving the calculations accepted in the design of machinery  
for light industries. Izv.vys.ucheb.zav.; tekhn.prom. no.6:  
121-125 '61. (MIRA 14:12)

1. Kiyovskiy tekhnologicheskii institut legkoy promyshlennosti.  
Rekomendovana kafedroy teorii mekhanizmov i mashin.  
(Machinery industry--Design and construction)



ORLIKOV, Mikhail L'vovich; KOZHEVNIKOV, S.N., retsenzent; KREMENSHTEYN,  
L.I., kand. tekhn.nauk, dots., otv. red.; CHISTYAKOVA, L.G.,  
inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Designing mechanisms for automatic machine tools]Proektirovanie  
mekhanizmov stankov-avtomatov. Moskva, Mashgiz, 1962. 247 p.  
(MIRA 16:2)

1.Chlen-korrespondent Akademii nauk Ukr.SSR (for Kozhevnikov).  
(Machinery, Automatic—Design and construction)

GORSKIY, B.Ye., kand.tekhn.nauk, dotsent; KREMENSHTSEYN, L.I., kand.tekhn.  
nauk, dotsent

Design and study of the mechanisms for high-speed machinery  
taking jerking into consideration. Izv.vys.ucheb.zav.; tekhn.  
leg.prom. 3:138-149 '62. (MIRA 15:6)

1. Kiyevskiy tekhnologicheskii institut legkoy promyshlennosti.  
Rekomendovana kafedroy teoreticheskoy mekhaniki i teorii  
mekhanizmov i mashin.

(Sewing machines)

KREMENSHTEYN, L.I., kand. tekhn. nauk, dotsent

Methodology for designing the automatic mechanism for winding chenille on a bobbin. Izv. vys. ucheb. zav.; tekhn. leg. prom. no.4:171-174 '63. (MIRA 16:10)

1. Kiyevskiy tekhnologicheskii institut legkoy promyshlennosti.

KREMENSHTEYN, L.I., kand. tekhn. nauk, dotsent

Two theorems for the plotting of jerk acceleration plans.

Izv. vys. ucheb. zav.; tekhn. leg. prom. no.5:91-97 '63.

(MIRA 16:12)

1. Kiyevskiy tekhnologicheskiy institut legkoy promyshlennosti.

Rekomendovana kafedroy teoreticheskoy mekhaniki, teorii mekhanizmov i mashin.

GORSKIY, B.Ye.; CHENNYAVSKIY, Ya.L.; KREMENSHEYN, L.I., kand.  
tekhn. nauk, retsenzent; MAKLAKOV, N.A., inzh., rod.

[Modernization of cam mechanisms of machines] Modernizatsia  
kulachkovykh mekhanizmov mashin. Moskva, Izd-vo "Mashino-  
stroenie," 1964. 97 p. (MIRA 17:5)

KORENYAKO, A.S.; KREMENSHEV, L.I.; PETROVSKIY, S.D.; OVSIYENKO,  
G.M.; BAKHANOV, V.Ye.; Prinsipal uchastiye YEMTS, F.M.;  
IVANOV, A.P., prof., retsenzent

[Preparation of a course project on the theory of mechanisms and machines] Kursovoe proektirovanie po teorii mekhanizmov i mashin. [By] A.S.Koren'ako i dr. Izd.4., perer. Moskva, Leningrad, 1964. 324 p. (MIRA 17:9)

GORSHTEYN, G.I.; KREMENSKAYA, I.N.

Role of the physicochemical state of impurities in the processes of their fractionation during the crystallization or precipitation of inorganic substances from aqueous solutions. Part 2: Effect of small additions of complex-forming sulfosalicylic acid on the fractionation of iron impurities during the crystallization of ammonium fluoride from aqueous solutions. Radiokhimiia 1 no.5:503-506 '59.

(MIRA 13:2)

(Ammonium fluoride) (Salicylic acid) (Crystallization)

RULENKO, N.F.; DZICMO, V.M.; KHEMENSKAYA, I.N.

Use of mixed chelate formation for concentrating thorium traces.  
Trudy Kcm. anal. khim. 15:96-100 '65. (MIRA 18:7)



5. 2200  
5. 2200

69051

AUTHORS: Komissarova, L. N., Flyushchev, V. Ye., S/078/60/005/03/014/048  
Kremenskaya, I. N. B004/B002

TITLE: Investigation as to Solubility and Thermal Stability of Zirconium Oxychloride

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 3, pp 586-592 (USSR)

ABSTRACT: First, the authors give a survey of publications on  $ZrOCl_2 \cdot 8H_2O$ , and mention L. K. Akhrap-Simonova (Ref 15). According to it, there are discrepancies as to solubility and stability of this compound, which urged the authors to write the present paper. The investigation was carried out with spectrally pure  $ZrOCl_2 \cdot 8H_2O$ . The removal of  $HfO_2$  was achieved by means of ion exchange chromatography. The solubility was investigated in the Wobser ultrathermostat type U-8 (Table 1, Fig 1) within the range  $-2$  to  $+110^\circ$ . It was found that the solubility of  $ZrOCl_2 \cdot 8H_2O$  increases with the temperature being raised to  $70.5^\circ$ . The maximum is reached at 42.00 weight% of  $ZrO_2$ . Below  $70.5^\circ$  no hydrolysis was observed in the concentrated solutions, as was observed by I. V. Tananayev and L. S. Guzeyeva (Ref 21) in diluted solutions. Above  $70.5^\circ$  the solubility of zirconium oxychloride is reduced due to hydrolysis and the development of compounds with a low content of chlorine of the general composition  $mZrOCl_2 \cdot nZrO(OH)Cl \cdot pH_2O$  ( $m > n$ ,  $p < 8$ ). At  $110^\circ$ , a homogeneous, viscous

Card 1/2

69051

Investigation as to Solubility and Thermal Stability of Zirconium Oxychloride S/078/60/005/03/014/048  
B004/B002

polymerization product develops as hitherto had only been observed in zirconium nitrates. The thermal stability of  $ZrOCl_2 \cdot 8H_2O$  was investigated by means of the following methods: 1) heating to a certain temperature under the influence of air, until constancy of weight is attained, 2) taking of thermograms by means of an N. S. Kurnakov pyrometer, and 3) by means of continuous weighing. The results are shown by tables 2, 3, and figures 2, 3. A partial loss of water already sets in at  $45^\circ - 65^\circ$ . At  $80^\circ$  decomposition sets in accompanied by the loss of chlorine, taking place in three stages and being finished at  $400^\circ - 450^\circ$ . Table 4 compares the results obtained according to various methods. Slight differences in the data are caused by different rates of heating. There are 3 figures, 4 tables, and 21 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova (Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosov). Khimicheskiy fakul'tet MGU (Chemical Department of the Moscow State University)

SUBMITTED: November 3, 1958

Card 2/2

KREMIENSKAYA, I. N.; BRUDZ, V. G.; AVILINA, V. N.; IVANOV, O. V.; DELIOMKO, V. M.

"Physikalisch-chemische Untersuchung von Mikroverunreinigungen in nichtwässrigen nichtmischbaren Systemen der Chloride der IV. Gruppe."

report submitted for 2nd Intl Symp on Hyperpure Materials in Science and Technology, Dresden, GDR, 28 Sep-2 Oct 65.

All-Union Inst für reine Reagentien und Reinststoffe, Moskau.

DZIAMKO, V.M.; RUDENKO, N.P.; KREMENSKAYA, I.N.

Mixed cyclocomplex formation in the system thorium (IV) -  
cupferron - 4'-nitro-2,2'-dihydroxy-4-methyl-5-isopropyl-  
zobenzene. Trudy IREA no.25:172-182 '63.

(MIRA 18:6)

RUDENKO, N.P.; KREMENSKAYA, I.N.; AVILINA, V.N.

Complex formation of thorium with 8-hydroxyquinaldoxime and  
caproic acid. Zhur. neorg. khim. 10 no.5:1160-1165 My '65.  
(MIRA 18:6)

KREMENSKAYA, N.L.; NIKITENKO, S.F.

Spring and fall frosts in Kursk and Belgorod Provinces. Sbor. rab.  
po sinop. no.3:25-42 '59. (MIRA 12:11)

1.Upravleniye gidrometeorologicheskoy sluzhby (UGMS) Tsentral'no-  
chernozemnykh oblastey.  
(Kursk Province--Frost) (Belgorod Province--Frost)

ACCESSION NR: AT4026440

S/3082/63/000/008/0053/0067

AUTHOR: Kremenskaya, N. L.; Nikitenko, S. F.

TITLE: Cold waves in Bryansk, Orlovsk, Kursk and Belgorod Oblasts

SOURCE: USSR. Glavnoye upravleniye gidrometeorologicheskoy sluzhby\*. Sbornik rabot po regional'noy sinoptike (Collection of works on regional forecasting), no. 8, 1963, 53-67

TOPIC TAGS: meteorology, air temperature, temperature extreme, circulation index, regional climatology, climate, weather forecasting, long-range weather forecasting

ABSTRACT: Cold waves occurring in October, November and December in Bryansk, Orlovsk, Kursk and Belgorod Oblasts are analyzed. The quantitative criterion for the temperature change during the passage of a cold wave is a drop of the minimum air temperature to -5C or lower. The oblasts mentioned are unprotected from cold air intrusions from the west and north, but forecasting of cold waves is facilitated by the ability to trace the advance of cold air toward the area for two or three days before its arrival. There are few Soviet studies of cold waves and none for the region discussed. Part I discusses the climatic characteristics of cold waves for the area. The tables indicate the detailed nature of the study:  
1. mean, maximum and minimum number of days with temperatures of -5C or lower by  
Card 1/2

ACCESSION NR: AT4026440

ten-day periods, months and years; 2 -- mean and absolute maximum intensity of cooling by ten-day periods, months and years; 3 -- relationship between intensity of cooling and number of days with cooling for October, November and December; 4 -- mean, mean minimum and mean maximum number of days with cooling, 1951-1960; 5-- mean, mean minimum and mean maximum intensity of cooling, 1951-1960. Most of the tables are prepared on the basis of data for 25 stations. Part 2 discusses the relationship between the number of days with cooling and the intensity of cooling and anomalies of the mean monthly air temperature; a large number of relationships of prognostic value were determined from this analysis. Part 3 gives the actual prognostic criteria developed for use in predicting cold waves; the method makes it possible to establish the relationship between the number of days with cooling (to -5C or lower) and the intensity of this cooling on the index of zonal circulation. Examples of forecasts are given. Orig. art. has: 4 formulas and 10 tables. ✓

ASSOCIATION: KURSKOYE BYURO POGODY\* (Kursk Weather Bureau)

SUBMITTED: 00

DATE ACQ: 16Apr64

ENCL: 00

SUB CODE: AS

NO REF SOV: 003

OTHER: 000

Card2/2



L 36147-66 EWT(m)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HW/DJ

ACC NR: AP6016312

(N)

SOURCE CODE: UR/0182/66/000/001/0001/0003

AUTHOR: Yusipov, Z. I; Kremenskiy, I. G.

ORG: none

TITLE: Extrusion through a roller-die

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 1, 1966, 1-3

TOPIC TAGS: roller die extrusion, metal extrusion, die, roll forging, metallurgic research

ABSTRACT: A newly developed method of extruding metal through a roller-die is described. The method consists in that the billet (Fig. 1) is extruded with a punch through a die consisting of two freely rotating rollers. Cylindrical lead blanks measuring 50 mm in diameter and 110 mm in length were experimentally extruded through such a die consisting of two rollers with the diameter of 80 mm each. For comparison, other specimens were extruded through a die with fixed rollers. The extrusion resulted in a strip-shaped forging 12 mm thick and 50 mm wide. In all cases the extrusion rate was 50 mm/min. As can be seen from the indicator diagrams in Fig. 2 in all cases the specimens extruded through the die with rotating rollers (case A) (curves 2 and 4) required a roughly 15% smaller extrusion pressure than the specimens extruded through the die with fixed rollers (case B) (curves 3 and 4). In Fig. 2 sector I corresponds

Card 1/3

UDC: 621.984.5

L 36147-66

ACC NR: AP6016312

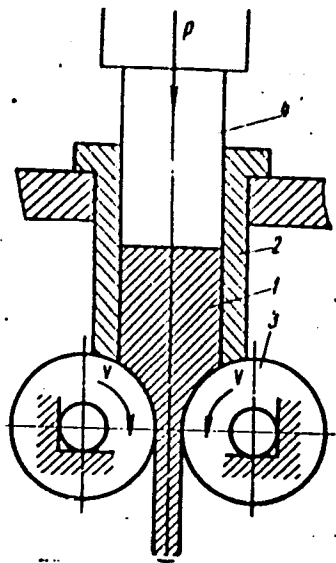
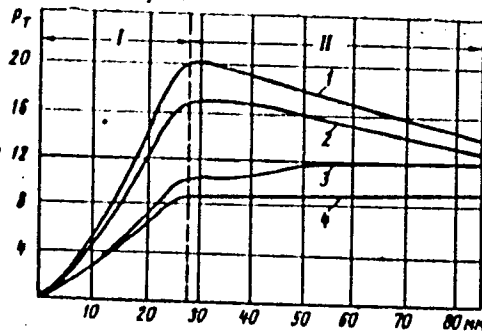


Fig. 1. Diagram of extrusion through roller-die

1- billet; 2 - container; 3 - rollers;  
4- punch

Card 2/3



Path of slider

Fig. 2. Indicator diagrams of extrusion:

- 1 - through fixed rollers without lubrication;
- 2 - through rotating rollers without lubrication;
- 3 - through fixed rollers with lubrication;
- 4 - through rotary rollers with lubrication

L 36147-66

ACC NR: AP6016312

to the region of extrusion through the die and sector II, to the stage of steady-state flow of metal through the die. The normal stresses on the punch surface are  $\sigma_n = 10.5 \text{ kg/mm}^2$  in case A and  $\sigma_n = 12 \text{ kg/mm}^2$  in case B. Such a decrease in extrusion pressure and stress in the case of the die with rotating rollers is attributable to the reduction in friction between the metal and the die surfaces. An analysis of the coordinate grids plotted on the specimens showed that in case A the distribution of deformations was more uniform and the area of plastic deformation smaller than in Case B. What is more, when extruding through rotary rollers (case A) it is easier to cool the roller surfaces with a coolant supplied from outside, and the wear on the roller surfaces is smaller because the entire area of roller surfaces is engaged and because then the possibility of continuous lubrication of these surfaces is assured. Last but not least, it appears that extrusion through mobile roller dies of this kind may also be employed to produce forgings of more intricate shapes, including forgings with a lengthwise varying cross sectional area. Orig. art. has: 5 figures.

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

Card 3/3 *ll-*



KREMSKOY, Aleksandr Aleksandrovich; KUNIN, V.N., doktor geograficheskikh nauk, redaktor; ASOYAN, N.S., redaktor; RIVINA, I.N., tekhnicheskiy redaktor.

[In Transcaspian territory] V Zakaspii. Moskva, Gos. izd-vo geogr. lit-ry, 1954. 126 p. (MLRA 7:12)  
(Turkmenistan--Phytogeography) (Turkmenistan--Description and travel)

KREMENTSKIY, N.N.

Calculating submerged turbulent jets. Dokl.AN Azerb.SSR 12 no.12:935-941  
'56. (MLRA 10:8)

1. Predstavleno akademikom Akademii nauk Azerbaydzhanskoy SSR M.F.  
Nagiyevym.

(Jets--Fluid dynamics)

KREMENTSOV, K.

A summer on virgin lands. Grazhd.av. 18 no.7:21 J1 '61.

(MIRA 14:8)

1. Komandir TSelinogradskogo podrazdeleniya Grazhdanskogo  
vozdushnogo flota.

(Virgin territory--Aeronautics in agriculture)

KREMERISCV, M.

"Action of Ground Troops when Atomic Weapons are Used," (As the Americans See It.)  
Red Star, Sep 1, 1954.

Translation D-141887, 17 Dec 54



*KREMENTSOV, M.*

AID P - 400

Subject : USSR/Aeronautics  
Card 1/1 Pub. 135, 14/18  
Author : Krementsov, M.  
Title : Hydrogen bomb (According to the foreign press)  
Periodical : Vest. vozd. flota, 8, 65-70, Ag 1954  
Abstract : Some general information about the hydrogen bomb and  
a review of the foreign press.  
Institution : None  
Submitted : No date

KREMENTSOV, Yu. G., ordinator

Two cases of cancer of the cervix uteri associated with extra-uterine pregnancy. Akush. i gin. 38 no.3:109-110 My-Je '62.  
(MIRA 15:6)

1. Iz akushersko-ginekologicheskoy kafedry (zav. - zaslužennyy deyatel' nauki prof. I. I. Yakovlev) Leningradskogo meditsinskogo instituta imeni akad. I. P. Pavlova na baze rodil'nogo doma Sverdlovskogo rayona (glavnyy vrach A. I. Fadeyeva)

(PREGNANCY, EXTRAUTERINE) (UTERUS—CANCER)

KRIVENICOV, Yu.G.

Significance of the activity of the lower section of the uterus in the course of labor. Akush. i gyn. no. 3:13-16 1965.

(MIRA 19:10)

1. Aluskerskoye oblasnoye (over. - prof. Ya.S. Kienitskiy) Institut skuchestva i ginekologii (direktor - chlen-korrespondent AN SSSR prof. M.A. Petrov-Maslakov) AN SSSR, Leningrad.

KREMENTULO, V. A.

MD Pharmacology of hypotensive substances. A. M. Dom-  
drows'ka, V. A. Kremenculo, and O. I. Cherkas (A. A.  
Bogomolets Med. Inst., Kiev). *Fiziol. Zhur., Akad. Nauk  
Ukr. R.S.S.R.* 1, No. 4, 80-7(1055) (Russian summary, 88-  
9).—The pharmacologic properties of hexamethonium iodide  
are studied. The subcutaneous L.D.<sub>50</sub> is 240 mg./kg.,  
L.D.<sub>50</sub> = 175 mg./kg., and M.L.D. = 100 mg./kg. The  
intravenous L.D.<sub>50</sub> is 100 mg./kg., L.D.<sub>50</sub> = 55 mg./kg., and  
M.L.D. = 40 mg./kg. The compd. exerts hypotensive ef-  
fects on dogs and cats, the intensity and duration depending  
upon the method of administration, the size of the dose, and  
the physiol. idiosyncrasies of the individual animal. In the  
early stages (2-4 months) of exptl. reflex type of hyperten-  
sion, the compd. produces effects lasting 1-1.5 months. It  
is concluded that the hypotensive properties are caused by  
the blocking of sympathetic channels. In addn., the compd.  
exerts an inhibitive effect on neurotransmission and on the  
parasympathetic nodes of the vegetative branch of the nerv-  
ous system. The compd. has no effect on the peripheral or  
adrenoreactive vascular systems. Toxic doses of the compd.  
exhibit curare-like effects in warm-blooded animals. In  
cold-blooded animals such effects become evident with much  
smaller doses. The drug inhibits nerve-impulse transmission  
in the sympathetic and parasympathetic ganglia and lowers  
the blood pressure in normal cats and rabbits after a single  
dose. B. S. Levine

②

KREMENTULO, V. A., STANKOVICH, V. V., DOMBROVSKAYA, A. M., and CHENNEV, A. I., Kiev

"Experimental Investigations of the Pharmacology of Hypotensive Drugs," a paper presented at the Fifth Conference of the Ukrainian Society of Physiologists, Biochemists, and Pharmacologists, 25 May- 2 June 1956, Khar'kov.

"The paper dwelt on the main pharmacological properties of certain derivatives of the methonium series. In experiments on cats, the preparations exhibited ganglioblocking action; while in acute experiments on rabbits the drugs under investigation caused a drop in blood pressure, the result of their blocking action on the sympathetic ganglia. In chronic experiments on rabbits suffering from experimental reflexogenic hypertonia the hypotensive action of hexatonide continued for 1.5 months. Hexatonide was also effective in renal hypertension. The addition of the benzoin radical to the hexamethonium radical not only prolonged the hypotensive action of the preparation, but also increased its toxicity."

CHERKES, A.I., prof.; DOMBROVSKAYA, A.M.; KREMENTULC, V.A.

Experimental studies on the pharmacology of agents for regulating  
vascular tonus. Vrach.delo no.1:1247-1249 D '58.

(MIRA 12:3)

1. Kafedra farmakologii (zav. - prof. A.I. Cherkas) Kiyevskogo me-  
ditsinskogo instituta.

(VASOMOTOR DRUGS)

DMITRIYEVA, V.A. [DMITRIIEVA, V.A.], KREMENTULO, V.A.

Elimination and cumulation of cardiac glycosides during drug-induced sleep [with summary in English] *Fiziol.zhur.* [Ukr.] 4 no.3:381-387  
My-Je '58 (MIRA 11:7)

1. Kiivs'kiy medichniy insitut im. akademika O.O. Bogomol'tsya  
kafedra farmakologii.  
(CARDIA GLYCOSIDES)  
(SLEEP)

DOMBROVSKAYA, A.M.; KREMENTULO, V.A.; CHERKES, A.I.

Pirilen is a new ganlion-blocking drug. Vrach. delo no.12:102-107  
D '60. (MIRA 14:1)

1. Kafedra farmakologii (zav. - deystvitel'nyy chlen AMN SSSR, prof.  
A.I.Cherkas) Kiyevskogo meditsinskogo instituta.  
(AUTONOMIC DRUGS) (PIPERIDINE)



KREMENTULO, V.M., agronom.

Ten tons of silage per cow. Nauka i pered.op.v sel'khoz. 7  
no.6:62-64 Je '57. (MIRA 10:7)  
(Silage) (Dairy cattle--Feeding and feeding stuffs)

*Krementulo, V. V.*

1.1000

S/040/60/024/03/19/020<sup>82127</sup>  
C 111/ C 333

AUTHOR: Krementulo, V. V. (Moscow)

TITLE: Stability of a Gyroscope, the External Ring Axis of which is Vertical, Under Consideration of the dry Friction in the Axes of Suspension

PERIODICAL: Prikladnaya matematika i mekhanika, 1960, Vol. 24, No. 3, pp. 568-571

TEXT: The author considers a gyroscope in Cardan suspension. Let x be the axis of the housing, and z the rotor axis,  $\psi$  the torsion angle of the external ring,  $\theta$  the torsion angle of the housing in the ring. The author investigates the stability of the gyroscope, if in the x-axis there acts the moment of dry friction

$$M_1 = - B_1 \text{ sign } \dot{\theta} , B_1 > 0$$

and in the z-axis the moment

$$M_2 = - B_2 \text{ sign } \dot{\psi} , B_2 > 0 .$$

*✓*

Card 1/2

S/040/60/024/03/19/020<sup>82127</sup>  
C 111/ C 333

Stability of a Gyroscope, the External Ring Axis of Which is Vertical,  
Under Consideration of the dry Friction in the Axes of Suspension

He states that the vertical rotation

(7)  $\theta = 0, \dot{\theta} = 0, \dot{\psi} = 0, r_0 = \omega$

is stable, if

(11)  $\xi < 0,$

where  $\xi$  is the distance of the center of gravity of the system housing-rotor from the origin of coordinates. Furthermore it is proved that under consideration of the dry friction a loss of the regular precession is possible, i. e. the rotor axis can take the fixed position  $\psi = \text{const}, \theta = \text{const}.$

The author mentions V. V. Rumyantsev.

There are 4 references: 3 Soviet and 1 French.

SUBMITTED: December 28, 1959

Card 2/2

UH

KREMENTULO, V. V.

Cand Phys-Math Sci - (diss) "Several problems of the stability of hydrosopic systems." Moscow, 1961. 6 pp; (Inst of Mechanics of the Moscow State Univ imeni M. V. Lomonosov); 150 copies; price not given; (KL, 6-61 sup, 193)

KREMENTULO, V.V. (Moskva); MARKHASHOV, L.M. (Moskva)

Evaluating the deviation of a balanced gyroscope in gymbals.

Inzh.zhur. 1 no.4:3-5 '61.

(MIRA 15:4)

1. Institut mekhaniki AN SSSR.

(Gyroscope---Testing)

26746

S/040/61/025/003/023/026  
D208/D304

13.2520 :

Krementulo, V.V. (Moscow)

TITLE: Stability of steady motion of a gyroscope by the method of Lyapunov, in the presence of elastic stresses in the rotor axle

PERIODICAL: Akademiya nauk SSSR. Otdeleniye tekhnicheskikh nauk. Prikladnaya matematika i mekhanika, v. 25, no. 3, 1961, 579 - 582

TEXT: The rotor of the gyroscope is considered here as a heavy homogeneous flywheel suspended symmetrically on an elastic weightless axle, whose ends are fixed at two diametrically opposed points on the inner ring. The resulting mechanical system possessed an infinite degree of freedom and exact Lyapunov methods for solution do not exist. Hence a model with a finite number of degrees of freedom is used here, and is given in Fig. 1 where  $\psi$  - angle of rotation of the inner ring about its axis  $z_1$  which is vertical;

Card 1/7

26746

S/040/61/025/003/023/026  
D208/D304

Stability of steady motion of ...

$\theta$  - angle of rotation of the inner ring (shell) about x-axis abcd - rotor fixed on the elastic axle  $Q_1LQ_2$  passing through the center of gravity of the rotor (broadside view).  $zQ_1OQ_2$  - line in the plane of the inner ring which connects the geometrical center (fixed point O) with points at which the rotor axle is connected to the ring. In the absence of transverse bending, the rotor axle coincides with the given straight line and point L coincides with  $L_0$ , whose distance from O is  $\xi$ .  $\pi$  - plane passing through  $L_0$  and perpendicular to  $OQ_1$ , and L. C. of G of the rotor remains in this plane during the motion of the system while its position in polar coordinates (Fig. 2) is given by  $r = L_0L$  and  $\varphi$  - angle between the polar radius  $L_0L$  and  $X^0$  axis ( $x^0$  and x are parallel).  $x^*, y^*, z^*$  - coordinate system with the origin at L, parallel to x, y, z respectively which in turn is stationary with respect to the inner ring.  $x', y'$  lie in the plane  $\Delta$ , the  $x'$  axis is given by the cross sec-

Card 2/7

Stability of steady motion of ...

26746  
S/040/61/025/003/023/026  
D208/D304

tion of  $\mathcal{N}$  and  $\Delta$  and is perpendicular to  $L_0L$ . The position of the rotor re  $x^*$ ,  $y^*$ ,  $z^*$  is given by  $\delta$  and  $\chi$ . The elastic properties of the rotor axle are determined by the stress  $m\mu_1 r$  and the tensile moment  $m\mu_2 \delta$ , where  $m$  = mass of the rotor,  $\mu_1$  and  $\mu_2$  supposed coefficients of rigidity of the axle. Now coordinates of  $L$  in terms of  $x = r \cos \varphi$ ,  $y = r \sin \varphi$ ,  $z = \xi$  are in  $x_1$ ,  $y_1$ ,  $z_1$

$$x_1 = r \cos \varphi \cos \psi - r \sin \varphi \cos \theta \sin \psi + \xi \sin \theta \sin \psi$$

$$y_1 = r \cos \varphi \sin \psi + r \sin \varphi \cos \theta \cos \psi - \xi \sin \theta \cos \psi$$

$$z_1 = r \sin \theta \sin \varphi + \xi \cos \theta$$

force function of the system is

$$2U = - m\mu_1 r^2 - m\mu_2 \delta^2 - 2mg(r \sin \theta \sin \varphi + \xi \cos \theta)$$

and if  $I$  = moment of inertia of the inner ring re  $z_1$ , then K.E's

Card 3/7

X



26746

S/040/61/025/003/023/026  
D208/D304

Stability of steady motion of ...

of the inner ring, shell and gyroscope respectively are

$$2T^{(BH)} = J\dot{\psi}^2$$

$$2T^{(K)} = A_1\dot{\theta}^2 + B_1\dot{\psi}^2\sin^2\theta + C_1\dot{\psi}^2\cos^2\theta$$

$$2T^{(T)} = m(\dot{x}_1^2 + \dot{y}_1^2 + \dot{z}_1^2) + A(\Omega_x^2 + \Omega_y^2) + C\Omega_z^2,$$

where  $A_1, B_1, C_1$  - moments of inertia of the shell re  $x, y, z$  respectively;  $A, A, C$  = moments of inertia of the rotor re  $x', y', z'$  respectively;  $\Omega_x, \Omega_y, \Omega_z$  - projections on  $x', y', z'$  of the absolute instantaneous angular velocity of the rotor

$$\Omega = \dot{\psi} + \dot{\theta} + \dot{\chi} + \dot{\varphi} + \dot{\delta}.$$

The stability of the motion w.r. to  $\theta, r, \varphi, \delta, \dot{\theta}, \dot{\psi}, \dot{r}, \dot{\varphi}, \dot{\delta}$  and  $\Omega_z$  is then investigated. Perturbed motion is

Card 4/7

26746

S/040/61/025/003/023/026  
D208/D304

Stability of steady motion of ...

$$\theta = \theta_0 + \eta_1, \quad r = r_0 + \eta_3, \quad \varphi = \varphi_0 + \eta_4, \quad \delta = \delta_0 + \eta_5,$$

$$\dot{\theta} = \xi_1, \quad \dot{\psi} = \Omega_0 + \xi_2, \quad \dot{r} = \xi_3, \quad \dot{\varphi} = \xi_4, \quad \dot{\delta} = \xi_5,$$

$$\Omega_{z_1} = \omega + \xi_6;$$

$$W = V_1 - 2\Omega_0 V_2 - 2C(\omega + \Omega_0 h_2) V_3$$

is of the type

$$W = F_1(\xi_1, \dots, \xi_6) + F_2(\eta_1, \eta_3, \eta_4, \eta_5) + F_3(\eta_1, \eta_4, \eta_5, \xi_6) + \dots$$

where  $F_1$  are quadratic forms. If  $F_2$  is definitely positive w.r. to  $\eta_1, \eta_3, \eta_4, \eta_5$  then  $V = W + R\xi_6$  can also be made definitely positive and hence can be used as a Lyapunov function. Sufficiency for conditions of stability is given by four conditions for  $F_2$  to be definitely positive (Silvester inequalities). Another method is

Card 5/7

Stability of steady motion of ...

26746  
S/040/61/025/003/023/026  
D208/D304

mentioned, based on the fact that the resulting potential energy  $\mathcal{K}$  at the stationary position should be at a minimum. There are 3 figures and 4 Soviet-bloc references.

SUBMITTED: February 23, 1961

Card 6/7

24,4200  
24,4300

44674  
S/258/62/002/004/002/019  
E031/E135

AUTHOR: Krementula, V.V. (Moscow)  
TITLE: The stability of motion of a rotor on elastic supports  
PERIODICAL: Inzhenernyy zhurnal, v.2, no.4, 1962, 213-216

TEXT: A homogeneous rotor rigidly attached to an axis and having within itself a hollow shaft rests on a thrust bearing which is inside the hollow shaft and is attached to an oscillating rod by means of a spherical hinge. The other end of the rod is attached to a fixed spherical hinge. There are bearings between the axis and the hollow shaft and two clamps in fixed horizontal planes. The clamps allow the system to execute three-dimensional motion. The centre of gravity of the system lies on the axis of symmetry of the rotor. A motor causes the rotor to rotate about the thrust bearing. The undisturbed position of the system corresponds to the case when the axis and the rod coincide with the vertical. If the rotor has a torus-shaped cavity, partially filled with fluid, then a simplified model of a turning hydrochannel, used for the study of flow past various bodies, is obtained.

f

Card 1/2

The stability of motion of a rotor... S/258/62/002/004/002/019  
EO31/E135

Lyapunov's second method is used to give the solution of the problem of the stability of the model of a dry hydrochannel. It is assumed that there is no friction in the system, which can be described by five Lagrangian equations. The problem of the stability in the sense of Lyapunov is solved by a method analogous to that used by V.V. Rumyantsev (Prikladnaya matematika i mekhanika, v.22, no.4, 1958). Necessary and sufficient conditions for stability are given. The system may have more than one stationary state near to that discussed and the method of determining the stability is indicated. There are 2 figures.

ASSOCIATION: Institut mekhaniki AN SSSR  
(Institute of Mechanics, AS USSR)

SUBMITTED: September 3, 1962

Card 2/2

13,252/

S/040/62/026/001/021/023  
D237/D304

AUTHOR: Krementulo, V.V. (Moscow)

TITLE: On the stability of motion of the gyroscope on a Cardan suspension in a potential force field

PERIODICAL: Akademiya nauk SSSR. Otdeleniye tekhnicheskikh nauk. Prikladnaya matematika i mekhanika, v. 26, no. 1, 1962, 185-187

TEXT: The problem of motion and stability of a heavy symmetrical gyroscope on a Cardan suspension was investigated by other authors, e.g. K. Magnus, (Ref. 3: PMM, 1958, v. 22, no. 2) and by the 2nd Lyapunov method, necessary and sufficient conditions of stability of steady motion were obtained. In the present work analogous results are obtained for a gyroscope suspended in a force field given by  $-V(\theta)$  where  $\theta$  - angle of rotation of the inner annulus. Lagrange coordinates are used throughout and necessary and sufficient conditions are obtained for the stability of vertical rotation of the gyroscope, and for regular

✓  
B

Card 1/2

On the stability of motion ...

S/040/62/020/001/021/023  
D237/D304

precession ( $\dot{\theta} \neq 0$ ). The author thanks V.V. Rumyantsev for suggesting the problem. There are 1 figure and 6 references: 5 Soviet-bloc and 1 non-Soviet-bloc.

✓  
B

SUBMITTED: October 10, 1961

Card 2/2

KREMENTULO, V. V. (Moskva)

Stability of the motion of a rotor with flexible supports.  
Inzh. zhur. 2 no.4:213-216 '62. (MIRA 16:1)

1. Institut mekhaniki AN SSSR.

(Rotors)



NIKITIN, Yevgeniy Mikhaylovich, dots.; Primal uchastiye KARLINYY,  
D.M., dots.; KREMENTULO, V.V., red.; SHKLYAR, S.Ya.,  
tekhn. red.

[Theoretical mechanics for technical schools] Teoreticheskaia mekhanika dlia tekhnikumov. Izd.3., perer. Mos. va,  
Fizmatgiz, 1963. 518 p. (MIRA 16:11)  
(Mechanics, Analytic) (Mechanical engineering)

EPA(b)/EWT(d)/EWT(1)/BDS/ES(t)-2--AEDC/AFFTC/ASD/AFMDC/APOC/SSD--Pd-4/Pg-4/  
Pk-4/Pl-4/Po-4/Pq-4--BC  
L 10792-63

ACCESSION NR: AP3000886

S/0179/63/000/002/0120/0125

AUTHOR: Krementulo, V. V. (Moscow)

84

TITLE: Some problems on the motion and stability of a spherical gyroscope

SOURCE: AN SSSR. Izv. Otd. tekhn. nauk. Mekhanika i mashinostroyeniye, no. 2, 1963, 120-125

TOPIC TAGS: spherical gyroscope, stability, motion equation, gyroscope stability, translational displacement

ABSTRACT: The motion and stability of an air-supported spherical gyroscope has been studied analytically with the use of a hypothetical gyroscope model in which aerodynamic forces acting on the sphere are replaced by a system of springs of equal length and rigidity. It was assumed that 1) a sphere with an absolutely smooth surface is resting in a radially movable smooth cup supported by a radial spring layer, 2) the sphere is rotating with given speed around its dynamic axis of symmetry, which at the initial moment coincides with the axis of symmetry of the cup, and 3) the sphere has a spatial motion with respect to a stationary system of coordinates with a center at a certain point. The analysis is made with

Card 1/2

L 10792-63

ACCESSION NR: AP3000886

0  
respect to translational displacement of the sphere and the motion of the sphere around its center of gravity. Two independent systems of equations of motion are derived with air assumed to be an ideal gas. The first system characterizes the motion of a center of mass, and the other is related to the motion of a sphere around a center of a mass and is in the form of Euler's dynamic equation. The stability conditions proposed by other authors are discussed. Orig. art. has: 2 figures and 35 formulas.

ASSOCIATION: none

SUBMITTED: 09Jan63

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: CG

NO REF SOV: 004

OTHER: 001

*msc/rd*  
Card 2/2

KREMENTULO, V.V. (Moscow)

"A problem of stability of a spherical gyroscope".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

TARG, Semen Mikhaylovich; KREMENTULO, V.V., red.; BRUDNO, K.F.,  
tekh. red.

[Brief course in theoretical mechanics] Kratkii kurs  
teoreticheskoi mekhaniki. Izd.3., perer. Moskva, Fiz-  
matgiz, 1963. 478 p. (MIRA 17:2)

KREMENTULO, V.V. (Moskva)

One problem of the stability of spherical gyroscopes. Prikl. mat. i  
mekh. 27 no.6:1005-1011 N-D '63. (MIRA 17:1)

NIKOLAI, Yevgeniy Leopoldovich. Prinsipialnoye uchastie KLIMOV, D.M.;  
KREMENTULO, V.V., red.

[Gyroscope in gimbals] Giroskop v kardanovom podvese.  
Izd.2. S predislovim A.IU.Ishlinskogo i s dopolnени-  
iami D.M.Klimova. Moskva, Izd-vo "Nauka," 1964. 130 p.  
(MIRA 17:6)

KREMENTULO, V.V. (Moskva)

Stability of unsteady motions of gyroscopes during a finite time interval. Inzh.zhur. 3 no.4:690-694 '63. (MIRA 16:12)

1. Institut mekhaniki AN SSSR.



Робинзон, Виктор Григорьевич; БУНДИН, В.Л., ред.

[Oscillatory system with bounded excitation] Kolesn.  
kollektory s ogranichennoy vzbujschennost'yu. 1967.  
skva, Izd-vo "Nauka," 1967. 254 p. (MFI 1977)

VAYNBERG, David Veniaminovich; PISARENKO, Georgiy Stepanovich;  
KREMENTULO, V.V., red.

[Mechanical vibrations and their role in technology] Me-  
khanicheskie kolebania i ikh rol' v tekhnike. Izd.2.,  
perer. i dop. Moskva, Nauka, 1965. 275 p.  
(MIRA 18:7)

BABAKOV, Ivan Mikhaylovich; KREMENTULO, V.V., red.

[Theory of vibrations] Teoriia kolebani. Izd.2., perer.  
Moskva, Nauka, 1965. 559 p. (MIRA 18:6)

KREMENTULO, V.V. (Moskva)

Stability of the motion of certain controllable gyroscopic  
devices on a mobile foundation. Izv. AN SSSR. Mekh. 11.2:  
69-75 Mr-Apr '65. (SIRA 18:6)