

KORNEV, P. G.

Bones - Tuberculosis

"Tuberculosis of the bones and joints; principles of pathology, diagnostics and therapy."  
Reviewed by A. Zabludorskiy. Vest Khir. 72 No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, June <sup>1952</sup> ~~1958~~, Unclassified.

KORNEV, P.G.

[Osteoarticular tuberculosis; principles of pathology, diagnosis and therapy] Kostno-sustavnoi tuberkulez; osnovy patologii, diagnostiki i lechenia. Izd. 2. ispr. i dop. Moskva, Medgiz, 1953.  
643 p. (MLBA 7:11)

(Bones--Tuberculosis) (Joints--Tuberculosis)

KORNEV, P. G.

Role of surgical intervention in complex therapy of osteoarticular tuberculosis. Probl. tuberk., Moskva no.3:14-19 May-June 1953. (GLML 25:1)

1. Professor, Active Member of the Academy of Medical Sciences USSR.
2. Of Leningrad State Scientific-Research Institute of Surgical Tuberculosis and Bone-and-Joint Diseases (Director -- Prof. P. G. Kornev, Active Member AMS USSR).

**KHOKHLOV, D.K.; KORNEV, P.G.**, professor, deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR, direktor.

Recuperative processes in osteoarticular tuberculosis. Probl. tub. no.3:  
38-48 My-Je '53. (MLBA 6:7)

1. Akademiya meditsinskikh nauk SSSR (for Kornev). 2. Gosudarstvennyy nauchno-issledovatel'skiy institut khirurgicheskogo tuberkuleza i kostno-sustavnykh sabolevaniy, Leningrad. (Bones--Tuberculosis) (Joints--Tuberculosis)

KASHKIN, P.N.; DOLINSKAYA, A.T.; SOKOLOVA, N.M.; KORNEV, P.G., professor, direktor;  
KUPALOV, P.S., professor, savednyushchiy.

Bactericidal properties of the natural gastric juice. Zhur.mikrobiol.epid.1  
immun. no.8:59-64 Ag '53. (MLRA 6:11)

1. Institut kostnokhirurgicheskogo tuberkuleza (for Kornev). 2. Fiziologi-  
cheskiy otdel im. O.P.Pavlova (for Kupalov). (Gastric juice)

KORNEV, P.G.

T. P. Krasnobaev. Vest. khir., Moskva 73 no.2:78-79 Mar-Apr 1953.  
(GML 24:3)

1. Professor. 2. Obituary of the former Scientific Director of the Bone-and-Joint Clinic of the Institute of Tuberculosis of the Academy of Sciences USSR and Consulting Surgeon of the Children's Model Hospital in Moscow.

KORNEV, Petr Georgiyevich, professor, laureat Stalinskoy premii; USPENSKAYA,  
N.V., redaktor; DMITRIYEVA, R.V., tekhnicheskiiy redaktor.

[Tuberculosis of bones and joints and its therapy] Kostno-sustavnoi  
tuberkulez i ego lechenie. Moskva, Izd-vo "Znanie," 1954. 38 p. (Vses.  
ob-vo po rasprostraneniui polit. i nauchn. znani, ser.3, no.49)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Kornev)  
(Bones--Tuberculosis) (Joints--Tuberculosis)

**KORNEV, P.G.**

[Russian authors on tuberculosis of the bones and joints]  
Uchenie o kostno-sustavnom tuberkuloze v trudakh russkikh  
avtorov. Leningrad. Medgiz, 1954. 90 p. (MLRA 8:6)  
(Bones--Tuberculosis)



KORNEV, P.G. professor

Reducing fistulotomy in complex therapy of severe fresh fistulous forms of tuberculous spondylitis. Vest. khir. 74 no.6:3-19 S '54.  
(MLRA 7:10)

1. Deystvitel'nyy chlen AN SSSR. 2. Iz Gosudarstvennogo nauchno-issledovatel'skogo instituta khirurgicheskogo tuberkuleza i kostno-sustavnykh zabolevaniy (dir. prof. P.G.Kornev)  
(TUBERCULOSIS, SPINAL, complications, fistulas, surg.)  
(FISTULA, etiology and pathogenesis, spinal tuberc., surg.)

KORNHV, P.G., professor

Principles of surgical treatment of osteoarticular tuberculosis.  
Ortop., travm. i protez. no.6:3-9 N-D '55. (MLRA 9:12)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR.  
(TUBERCULOSIS, OSTEOARTICULAR, surg.  
results)

**KORNEV, P.G., professor**

Present state of medical aid in osteoarticular tuberculosis in  
R.S.F.S.R. Ortop., travm. i protes. 17 no.3:3-6 My-Je '56.

(MIRA 9:12)

1. Doystvitel'nyy chlen Akademii meditsinskikh nauk SSSR.  
(TUBERCULOSIS, OSTEOARTICULAR, prevention and control,  
in Russia (Rus))

*Kornev, P.G.*

KORNEV, P.G., prof.

Osteoarticular tuberculosis. *Zdorov'e* 3 no.12:20-21 D '57. (MIRA 11:1)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR.  
(BONES--TUBERCULOSIS)

KORNEV, P.G.

Study and compound treatment of osteoarticular tuberculosis during the past 40 years [with summary in French]. Probl.tub. 35 no.7: 72-78 '57. (MIRA 11:2)

1. Deystvitel'nyy ohlen AMN SSSR (TUBERCULOSIS, OSTEOARTICULAR, ther. progr. in Russia)

KORSEY, S.S., professor (Leningrad)

Leningrad Conference of the Republic Institute of Tuberculosis  
Research, held on nov. 26 - 30, 1956. Vest.khir. 73 no.4:144-149  
Ap 157. (MLRA 10:9)

1. Deyatviteli'yy chlen ANM SSSR  
(TUBERCULOSIS)

*Kornev P.G.*

KORNEV, P.G., prof. (Leningrad, 18, Svetlanovskaya ul., d.5)

Development of surgery in osteoarticular tuberculosis in the U.S.S.R.  
Vest.khir. 79 no.12:3-15 D '57. (MIRA 11:1)

1. Deyatvitel'nyy chlen AMN SSSR.  
(TUBERCULOSIS, OSTEOARTICULAR, surg.  
progr.)

AL', G.E., doktor med.nauk; AMOSOV, N.M., prof.; ANTELAVA, N.V., prof.; BOGUSH, L.K., prof.; VOZNESENSKIY, A.N., prof.; VIL'NYANSKIY, L.I., kand.med.nauk; LAPINA, A.A., prof.; MASSINO, S.V., doktor med.nauk; MIKHAYLOV, F.A., prof.; RABUKHIN, A.Ye., prof.; KHRUSHCHOVA, T.N., prof.; SHAKLEIN, I.A., prof.; YABLOKOV, D.D., prof.; MYNIS, V.L., prof., zaslushenny deyatel' nauki, otv.red.; KORNEV, P.G., prof., red.; KUDRYAVESEVA, A.I., prof., red. [deceased]; LAPINA, A.I., red.; LEBEDEVA, Z.A., kand.med.nauk, red.; STRUKOV, A.I., prof., red.; SHEBANOV, F.V., prof., zaslushenny deyatel' nauki, red.toma; GRINSHPUNT, Ye.M., red.; LYUDKOVSKAYA, N.I., tekhn.red.

[Multivolume manual on tuberculosis] Mnogotomnoe rukovodstvo po tuberkulezu. Moskva, Gos.isd-vo med.lit-ry. Vol.2. [Tuberculosis of the respiratory organs] Tuberkulez organov dykhania. Red.toma A.E.Rabukhin i F.V.Shebanov. Book 2. 1959. 408 p. (MIRA 13:5)

1. Chleny-korrespondenty AMN SSSR (for Antelava, Bogush, Yablokov, Strukov). 2. Deystvitel'nyy chlen AMN SSSR (for Kornev).  
(TUBERCULOSIS)



KORNEV, P.G., red.; KOVALENKO, D.G., red.

[Tuberculous coxitis; proceedings of a republic conference, 1956] Tuberkuleznyi koksit; trudy respublikanskoi nauchnoi konferentsii 1956 g. Pod red. P.G.Korneva i D.G.Kovalenko. Leningrad, 1959. 289 p. (MIRA 14:11)

1. Leningrad. Nauchno-issledovatel'skiy institut khirurgicheskogo tuberkuleza.

(HIP JOINT--TUPERCULOSIS)

KORNEV, Petr Georgiyevich, prof.; GERASIMENKO, N.I., red.; BUL'DYAYEV,  
N.A., tekhn.red.

[Clinical care and treatment of tuberculosis of the bones and  
joints] Klinika i lechenie kostno-sustavnogo tuberkuleza.  
Moskva, Gos.izd-vo med.lit-ry, 1959. 567 p. (MIRA 12:5)

1. Deyatvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for  
Kornev).

(BONES--TUBERCULOSIS)

BUNINA, B.Z., prof.; DRABKINA, R.O., prof.; KLEBANOVA, A.A., kand. biolog.nauk; KOSMODAMIANSKIY, V.M., prof.; MODEL', L.M., prof.; RABUKHIN, A.Ye., prof.; STRUKOV, A.I., prof.; STUKALO, I.T., prof.; TIMASHEVA, Ye.D., kand.med.nauk; CHRISTOVICH, A.N., prof.; SHMELEV, N.A., prof.; EYNIS, V.L., prof., zaslushennyy deyatel' nauki, otv. red., red.toma; KORNEV, P.G., prof., red.; KUDRYAVTSEVA, A.I., prof. [deceased]; red.; LEBEDEVA, Z.I., kand.med.nauk, red.; LAPINA, A.I., red.; MASSINO, S.V., doktor med.nauk, red.; SHEBANOV, F.V., prof., zaslushennyy deyatel' nauki, red.; SENCHILO, K.K., tekhn.red.

[Multivolume handbook on tuberculosis] Mnogotomnoe rukovodstvo po tuberkulezu. Moskva, Gos.izd-vo med.lit-ry. Vol.1. [General problems in tuberculosis] Obshchie problemy tuberkuleza. Red. toma: V.L.Einis, A.I.Strukov. 1959. 672 p. (MIRA 13:6)

1. Chlen-korrespondent AMN SSSR (for Strukov, Shmelev). 2. Deystvitel'nyy chlen AMN SSSR (for Kornev).  
(TUBERCULOSIS)

KORNEV, P.G., prof.

Review of 40 years of activity of the Leningrad Institute of  
Surgical Tuberculosis and new problems. Ortop.travm. i protez.  
20 no.3:7-13 Mr '59. (MIRA 12:6)

1. Deystvitel'nyy chlen AMN SSSR. Direktor Leningradskogo  
instituta khirurgicheskogo tuberkuleza.  
(TUBERCULOSIS, prev. & control  
in Russia, role of Leningrad Institute of  
surg. tuberc. (Rus))

KORNEV, P.G., prof. (Leningrad, Svetlanovskaya ul., d. 5)

Current concepts concerning the pathogenesis and treatment of  
tuberculous coxitis [with summary in English]. Vest.khir. 82  
no.3:3-11 Mr '59. (MIRA 12:4)

1. Deystvitel'nyy chlen AMN SSSR. Iz Leningradskogo nauchno-  
issledovatel'skogo instituta khirurgicheskogo tuberkuleza (dir. -  
prof. P.G. Kornev).

(TUBERCULOSIS, OSTEOARTICULAR  
hip, pathogen. & ther. (Rus))

(HIP, dis.  
tuberc., pathogen. & ther. (Rus))

KORNEV, P.G., prof.

New trends in surgical treatment of infiltrative abscesses in tuberculous spondylitis. Vest.khir. 83 no.11:3-11 N '59. (MIRA 13:4)

1. Deystvitel'nyy chlen AMN SSSR. Adres avtora: Leningrad, Svetlanovskaya ul., 5, Institut khirurgicheskogo tuberkuleza.  
(TUBERCULOSIS, SPINAL surgery)

KORNEV, P. G., (Prof.), and KOVALENKO, D. G., (Prof.) -- Leningrad

"Tumors of Bones in the Clinical Course of Tuberculosis of Bones  
and Joints."

Report submitted for the 27th Congress of Surgeons of the USSR, Moscow,  
23-28 May 1960.

KORNEV, P.G., prof. (Leningrad)

Present-day achievements in the surgical treatment of osteoarticular tuberculosis. Sov.med. 24 no.9:3-10 S '60. (MIRA 13:11)

1. Deystvitel'nyy chlen AMN SSSR.  
(BONES--TUBERCULOSIS)



KORNEV, P.G.

Focal surgery of tuberculous spondylitis. Khirurgia 36 no.6:7-  
12 Je '60. (MIRA 13:12)  
(SPINE--TUBERCULOUS)

KORNEV, P.G.

Radical policy in the surgical treatment of tuberculous spondylitis  
and its complications. Vest. khir. 84 no. 2:61-68 F '60.  
(MIRA 14:1)

(SPINE—TUBERCULOSIS)

KORNEV, P. G.; KHOKHLOV, D. K., prof. (Leningrad)

Radical prophylactic trend in the treatment of tuberculosis of the joints in the U.S.S.R. Ortop., travm. i protez. no.3:3-8 '62. (MIRA 15:6)

1. Doystvitel'nyy chlen AMN SSSR (for Kornev). Adres avtorov: Leningrad K-21, Institutskaya ul. d. 6, Leningradskiy institut khirurgicheskogo tuberkuleza i kostno-sustavnykh zabolevaniy.

(JOINTS---TUBERCULOSIS) (BONES---TUBERCULOSIS)

KORNEV, P.G., prof.; KHOKHLOV, D.K., prof.

Radical-prophylactic trends in the treatment of joint tuberculosis in the USSR. Khirurgia 15 no.2/3:141-144 '62.

1. Deistvitelen ehlen na AMN na SSSR (for Kornev).  
(TUBERCULOSIS OSTEOARTICULAR surg)

KORNEV, P. G., prof. (Leningrad)

The old and the new in the treatment of osteoarticular tuberculosis. Khirurgia 38 no.7:57-65 J1 '62. (MIRA 15:7)

(BONES--TUBERCULOSIS)  
(JOINTS--TUBERCULOSIS)

ARENDE, A.A., prof.; ARKHANGEL'SKIY, V.V., kand. med. nauk; BOGDANOV, F.R., prof.; BONDARCHUK, A.V., prof.; KOPYLOV, M.B., prof.; KORNEV, P.G., zasl. deyatel' nauki RSFSR, prof.; KUSLIK, M.I., ~~prof.~~; ~~LEVINSON, N.D., doktor med. nauk; MAKAROV, M.P., kand. med. nauk; NIKOL'SKIY, V.A., prof.; PODGORNAYA, A.Ya., doktor med. nauk; RAZDOL'SKIY, I.Ya., prof. [deceased]; ROSTOTSKAYA, V.I., kand. med. nauk; TUMSKOY, V.A., kand. med. nauk; UGRYUMOV, V.M., prof.; FISHKIN, V.I., kand. med. nauk; KHRAPOV, V.S., kand. med. nauk; CHIKOVANI, K.P., prof. [deceased]; SHLYKOV, A.A., prof.; PETROVSKIY, B.V., prof. zasl. deyatel' nauki RSFSR, otv. red.; YEGOROV, B.G., zasl. deyatel' nauki RSFSR prof., red. toma; MIRONOVICH, N.I., doktor med. nauk, zam. red.; PARAKHINA, N.L., tekhn. red.~~

[Manual on surgery] Mnogotochnoe rukovodstvo po khirurgii. Moskva, Medgiz. Vol.4. [Neurosurgery; the sequelae of lesions of the central nervous system. Diseases of the spine, the spinal cord and its membranes. Diseases of the vegetative nervous system] Neurokhirurgia; posledstviia povrezhdenii tsentral'noi nervnoi sistemy. Zabolevaniia pozvonochnika, spinnoego mozga i ego obolochek. Zabolevaniia vegetativnoi nervnoi sistemy. 1963. 667 p. (MIRA 16:10)

1. Deystvitel'nyy chlen AMN SSSR (for Petrovskiy, Yegorov, Kornev). 2. Chlen-korrespondent AMN SSSR (for Bogdanov).  
(NERVOUS SYSTEM—SURGERY) (SPINE—SURGERY)

BLINOV, N.I., prof. (Leningrad); GROZDOV, D.M., prof. (Moskva);  
GOL'DGAMMER, K.K., doktor med.nauk (Moskva); DRACHINSKAYA,  
Ye.S., prof. (Leningrad); KORNEV, P.G., zasl. deyatel' nauki,  
prof. (Leningrad); LEVIT, V.S., zasl. deyatel' nauki, prof.  
[deceased]; LIDSKIY, A.T., zasl. deyatel' nauki prof. (Sverdlovsk);  
NAPALKOV, P.N., zasl. deyatel' nauki prof. (Leningrad); PETROV, B.A.,  
prof.; PRIOROV, N.N. [deceased]; SAMOTOKIN, B.A., dots. (Leningrad);  
SEL'TSOVSKIY, P.L., prof. [deceased]; FRUMKIN, A.P., prof.  
[deceased]; Kholdin, S.A., prof. (Leningrad); SHAKHBAZYAN, Ye.S.,  
prof. (Moskva); SHLAPOBERSKIY, V.Ya., prof. (Moskva); YUSEVICH, Ya.S.,  
prof. (Leningrad); VISHNEVSKIY, A.A., prof., red.; GOL'DGAMMER,  
K.K., red.; BEL'CHIKOVA, Yu.S., tekhn. red.

[Specialized surgery; manual for physicians in three volumes]  
Chastnaya khirurgiya; rukovodstvo dlia vrachei v trekh tomakh. Pod  
red. A.A. Vishnevskogo i V.S. Levita. Moskva, Medgiz. Vol.2. [Abdominal  
cavity and its organs, spinal cord, spine, pelvis, urogenital system]  
Briushnaya polost' i ee organy, spinnoi mozg, pozvonochnik taz, mo-  
chepolovaya sistema] 1963. 717 p. (MIRA 16:3)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk (for Kornev,  
Priorov). 2. Chlen-korrespondent Akademii meditsinskikh nauk  
(for Lidskiy, Petrov, Kholdin).

(SURGERY)

AR'YEV, T.Ya., prof.(Leningrad); BAICHIN, I.S., prof.(Leningrad);  
VAYNSHTEYN, V.G., prof. (Leningrad); GORODETSKIY, Ye.M.,  
kand. med. nauk (Moskva); GRATSIANSKIY, V.P., prof.  
(Leningrad); KORNEV, P.G., prof.(Leningrad); KAPLAN, A.V., prof.  
(Moskva); LEVIT, V.S., zasl. deyatel' nauki, prof.[deceased];  
PSHENICHNIKOV, V.I., prof.(Moskva); RUFANOV, I.G., prof.  
(Moskva); SITENKO, V.M., prof.(Leningrad); SMIRNOV, Ye.V., prof.  
(Leningrad); FRIDLAND, M.O., zasl. deyatel' nauki, prof.(Moskva);  
SHEYNIS, V.N., doktor med. nauk, (Leningrad); SHLAPOBERSKIY,  
V.Ya., prof.(Moskva); VISHNEVSKIY, A.A., prof., red.; GOL'DGAMMER,  
K.K., red.; BEL'CHIKOVA, Yu.S., tekhn. red.

[Specialized surgery] Chastnaia khirurgiia; rukovodstvo dlia vra-  
chei v trekh tomakh. Pod red. A.A. Vishnevskogo i V.S.Levita.  
Moskva, Medgiz. Vol.3.[The extremities] Konechnosti. 1963. 670 p.  
(MIRA 16:5)

1. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for  
Kornev, Rufanov).

(EXTREMITIES (ANATOMY))--SURGERY



KORNEV, Petr Georgiyevich; SARKISOV, M.A., red.

[Surgery of osteoarticular tuberculosis] Khirurgia kostno-sustavnogo tuberkuleza. Leningra , Meditsina, 1964. 549 p.  
(MIRA 17:6)

1. Deystvitel'nyy chlen AMN SSSR (for Kornev)

ABRAMYAN, A.Ya., prof.; BUSALOV, A.A., prof.; VELIKORETSKIY, A.N.,  
prof.; GROZDOV, D.M., prof.; DORMIDONTOVA, K.V., dots.;  
ZHMAKIN, K.N., prof.; KORNEV, P.G.; LEVIT, V.S. prof.  
[deceased]; LIKHACHEV, A.G., prof.; LOBACHEV, S.V., prof.;  
MOLODAYA, Ye.K., prof.; PETROV, B.A.; PRIOROV, N.N. [deceased];  
SALISHCHEV, V.E., prof. [deceased]; SAPOZHKOVA, P.I., prof.  
[deceased]; TERNOVSKIY, S.D. [deceased]; FAYERMAN, I.L., prof.,  
zasl. deyatel' nauki; CHAKLIN, V.D.; CHENTSOV, A.G., prof.  
[deceased]; CHERNAVSKIY, V., prof.; SHADURSKIY, K.S., prof.;  
SHAKHBAZYAN, Ye.S., prof.; VELIKORETSKIY, A.N., prof.; red.;  
GORELIK, S.L., dots., red.; YELANSKIY, N.N., red.; STRUCHKOVA,  
V.I., red.; RYBUSHKIN, I.N., red.; BUL'DYAYEV, N.A., tekhn.  
red.

[Surgeon's manual in two volumes] Spravochnik khirurga v dvukh  
tomakh. Moskva, Medgiz. Vol.2. 1961. 642 p. (MIRA 17:4)

1. Chlen-korrespondent AMN SSSR (for Yelanskiy, Struchkova,  
Petrov, Ternovskiy, Chaklin). 2. Deystvitel'nyy chlen AMN SSSR  
(for Kornev, Priorov).

KORNEV, P.G., prof.; ZEDGENIDZE, G.A., prof.; KHOKHLOV, D.K., prof.;  
~~KOVALENKO, D.G., prof.~~

Gratsianskii, Vladimir Petrovich, 1900-1963; obituary.  
Vest. rent. i rad. 38 no.6:72 N-D '63. (MIRA 17:6)

1. Deystvitel'nyye chleny AMN SSSR (for Kornev, Zedgenidze).

KORNEV, S. A., ENGR

Dissertation: "Evaluation of Hot-Water Heating Systems in the Planning of Residential Areas." Cand Tech Sci, Sci Res Inst of Construction Engineering, Academy of Architecture USSR, 16 Apr 54, (Vechernyaya Moskva, Moscow, 7 Apr 54)

SO: SUM 243, 19 Oct 1954



KORNEV, T. N.

"Improving the Methodology of Designing Drill Columns on the Basis of Experimental Data." Cand Tech Sci, Azerbaydzhan Order of Labor Red Banner Industrial Inst imeni M. Azizbekov, Min Higher Education USSR, Baku, 1955. (KL, No 17, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

KORNEV, T.N.

Calculating drilling casings taking into consideration the  
effect of changing loads. Azerb.neft.khoz. 35 no.6:10-13  
Je '56. (MLRA 9:10)

(Oil well drilling)

**MEKHTEYEV, B.Kh.; KORMEV, T.N.**

Dismantling outworn lock joints by means of electric induction heating. Azerb.neft.khoz.35 no.9:12-13 S '56. (MLRA 9:12)  
(Oil wells--Equipment and supplies--Repairing)  
(Induction heating)



KORNEV, T. N.

ALLAKHVERDIYEVA, V.A., inzhener; BABALYAN, N.A., inzhener; GUSEYNOV, M.A.,  
inzhener; GOSYNOV, S.B., inzhener; DADSHEV, B.B., kand.tekhn.nauk;  
KORNEV, T.N., kand.tekhn.nauk; LUKOD'YANOV, I.B., inzhener;  
MAMED'YAROVA, Z.D., inzhener; PIVOVAROV, I.F., inzhener; SAROYAN, A.Ye.,  
inzhener; SHNEYDEROV, M.R., kand.tekhn.nauk; SHVARTSMAN, L.A., kand.  
tekhn.nauk; ERLIKH, G.M., inzhener; AL'TMAN, T.B., red.izdatel'stva.

[Reference manual on pipes used in petroleum engineering] Spravochnik  
po neftepromyslovym trubam. Baku, Azerbaidzhanskoe gos.izd-vo nef.  
i nauchno-tekhn.lit-ry, 1957. 446 p. (MIRA 10:12)  
(Pipe)

KORNEV, L.H.

SUBJECT: USSR/Welding

135-3-8/17

AUTHORS: Vladimirova, G.T., Engineer, Kornev, T.N., Candidate of Technical Sciences, and Timofeyev, V.I., Engineer.

TITLE: Drill Pipe Couplings Automatically Resurfaced under Flux and Welded to the Pipes (Avtomaticheskaya naplavka pod flyusom buril'nykh zamkov i privarka ikh k trubam).

PERIODICAL: "Svarochnoye Proizvodstvo", 1957, #3, pp 17-20. (USSR)

ABSTRACT: Up to now, repair and surfacing work on drill pipes and pipe couplings in oil fields is done by hand welding, and the necessity has arisen to mechanize this work. The first, experimental, welding machine is now completed and the new technology developed. The machine is described in detail with a photograph and an electric circuit diagram, the latter was suggested by engineer K.I. Drok). The machine accommodates couplings of 108, 146, 178, and 203 mm diameter and also serves for welding the couplings to the pipes. The flux-holding device used with this machine (for which V.I. Timofeyev has been granted an author's certificate in 1950) eliminates spilling of flux (the design is shown by drawing, Figure 4).

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AUTHORS: Kornev, T. N., Akhmedov, B. M.

SOV/32-24-10-36/70

TITLE: An Apparatus for Testing in Nature the Resistance of Boring Tubes for Geological Prospecting (Ustanovka dlya naturnykh ispytaniy na vynoslivost' buril'nykh geologorazvedochnykh trub)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 10, pp 1261-1263 (USSR)

ABSTRACT: An apparatus was constructed which makes possible the testing mentioned in the title of tubes with a diameter of 60 mm. In projecting the apparatus the construction of the stand for tests on location of the resistance of prospecting tubes was used. (Ref 1). The load method was employed, in which the bending moment is reached by the centrifugal force of a weight rotating around the sample at rest. The main technical data on the apparatus are given with a schematic representation and a description. Natural compounds of geological prospecting tubes (diameter 60 mm) with joints welded-on were tested by the apparatus described. The experiments carried out showed that the apparatus may be recommended for tests as well as for the elaboration of new tube constructions and the corresponding classification of their resistance to fatigue. There are 2 figures, 1 table, and 1 reference, which is Soviet.

Card 1/2

An Apparatus for Testing in Nature the Resistance of Boring Tubes for Geological Prospecting

SOV/32-24-10-36/70

ASSOCIATION: Azerbaydzhanskiy nauchno-issledovatel'skiy institut neftyanogo mashinostroyeniya (Azerbaydzhani Scientific Research Institute for the Construction of Petroleum Machinery)

Card 2/2

KORNEV, T.N.; GANIYEV, S.M.

Selecting a method of quality control of butt-welded drill pipe joints. Avtom. svar. 16 no.6:55-62 Je '63. (MIRA 16:7)

1. Azerbaydzhanskiy nauchno-issledovatel'skiy institut neftyanogo mashinostroyeniya.  
(Pipe, Steel--Welding) (Nondestructive testing)

KORNEV, T.N.

Studying material properties of pipes made of 30G2S and 30KhG2SV  
steels and subjected to heat treatment with compressed air blasting.  
Sbor.nauch.-tekh.inform.Azerb.inst.nauch.-tekh.inform.Ser.Mashinostroi.  
prom. no.4:28-36 '62. (MIRA 18:8)

L 04680-67 EWT(d)/EWT(m)/EWP(v)/T/EWP(t)/ETI/EWP(r)/EWP(h)/EWP(l) JD/HM

ACC NR: AR6020943

SOURCE CODE: UR/0137/66/000/002/E029/E029

AUTHOR: Abdullayev, A. A.; Kornev, T. N.; Mekhtiyev, R. A.; Sutovskiy, P. M. 46

TITLE: Experimental machine for welding compressed gas cylinders by means of an electric arc rotating in a magnetic field 13

SOURCE: Ref. zh. Metallurg, Abs. 2E219

REF SOURCE: Tr. Azerb. n.-i. in-ta neft. mashinostr., vyp. 3, 1965, 340-351

TOPIC TAGS: arc welding, welding equipment

TRANSLATION: The experimental machine was developed for arc welding in a magnetic field. The machine is intended for the welding of various joints in petroleum industry machinery and consists of the following basic components: right and left clamping devices mounted on guide frames. A description of the construction and operation of the machine is presented. F. Fomenko. 16

SUB CODE: 13,11

UDC: 621.791.75.037:624.074.7

Card 1/1

Ev

VRUBLEVICH, Ye.I.; KORNEV, T.Ya.

Some problems of the Pre-Cambrian stratigraphy of the southern part of  
the Yenisey Range. Mat. po geol. i pol.iskop.Kras.kraia no.3:13-19 '62.  
(MIRA 17:2)



KORNEV, T.Ya.

Magmatic formations in the southern part of the Yenisey Valley.  
Dokl.AN SSSR 144 no.1:204-206 My '62. (MIRA 15:5)

1. Geologotopos yemochaya ekspeditsiya Krasnoyarskogo  
geologicheskogo upravleniya. Predstavleno akademikom D.S.Korshinskim.  
(Yenisey Valley--Rocks, Igneous)

KORNEV, T.Ya.

Genesis of charnockites in the southern part of the Yenisey Ridge.  
Izv.AN SSSR.Ser.geol. 26 no.7:115-116 JI '61. (MIRA 14:7)  
(Yenisey Ridge—Charnockite)

KORNEV, T.Ya.

Gabbro-noritic intrusion of the southern part of the Yenisey  
Ridge. Geol.i geofiz. no.5:34-43 '62. (MIRA 15:8)

1. Geologos"yemochnaya ekspeditsiya Krasnoyarskogo geologicheskogo  
upravleniya.  
(Yenisey Ridge--Rocks, Igneous)

KORNEV, V. (Bryansk)

Reproducing attachment to an enlarger. Sov. foto 19 no.4:53-54  
Ap '59. (MIRA 12:5)

(Photography--Enlarging)

KORNEV, V.

Public inspection of economy. Sov.profsoiuzy 7 no.15:14-15  
Ag '59. (MIRA 12:12)

1. Predsedatel' Omskogo oblsovprofa.  
(Omsk Province--Industrial management)

KORNEV, W., polkovnik; SOKOLOV, K., polkovnik

Engineer organization of a company strong point. Voen. vest.  
42 no.8:39-43 Ag '62. (MIRA 15:7)  
(Military field engineering)

KORNEV, V., kand.sel'skokhozyaystvennykh nauk

Litter fall in the forest. Nauk i zhizn' 29 no.3:14-16 Mr '62.

(MIRA 15:7)

(Forest litter)

KORNEV, V.

Analyzing the operational reliability of the M-50 diesels.  
Rech. transp. 24 no. 10:39-40 '65. (MIRA 18:12)



VARTANOV, S.P.; KORNEV, V.A.; YUROV, Yu.G.

Seismic studies of the Cheleken-Neftyanje Kanni profile. Geol. nefti  
i gaza 3 no.3:53-56 Mr '59. (MIRA 12:4)

1. Nauchno-issledovatel'skaya morskaya geofizicheskaya ekspeditsiya  
Vsesoyuznogo nauchno-issledovatel'skogo instituta geofizicheskikh  
metodov razvedki.  
(Caspian Sea--Prospecting--Geophysical methods)

KORNEV, V.A.

Tectonics of the Ogurchinskiy region. Geol.nefti i gaza  
3 no.12:37-41 D '59. (MIRA 13:4)

1. Nauchno-issledovatel'skaya morskaya geofizicheskaya  
ekspeditsiya (NIMGE) Vsesoyuznogo nauchno-issledovatel'-  
skogo instituta geofiziki.  
(Ogurchinskiy Island--Geology, Structural)

VARTANOV, S.P.; KORNEV, V.A.

Offshore tracing of disjunctive disturbances by the reflected  
wave method. Rasved. i prom. geofiz. no. 29:14-35 '59.

(MIRA 13:1)

(Caspian Sea--Prospecting--Geophysical methods)

KORNEV, V.A.

Tectonics of the Cheleken-Gubkin uplift. Geol. nefti i gaza 4  
no. 3:10-16 Mr '60. (MIRA 13:12)

1. Nauchno-issledovatel'skaya morskaya geofizicheskaya ekspeditsiya  
Vsesoyuznogo nauchno-issledovatel'skogo instituta geofiziki.  
(Turkmenistan--Geology, Structural)

VARTANOV, S.P.; KORNEV, V.A.

Recent data on the geological structure of the northern Caspian;  
results of maritime seismic investigations. Dokl.AN SSSR 136 no.5:  
1172-1175 F '61. (MIRA 14:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh  
metodov razvedki. Predstavleno akad. A.L.Yanshinym.  
(Caspian Sea--Submarine geology)

LASKINA, V.V.; YANUSHEVICH, M.A.; KORNEV, V.A.

Tectonics of the Kara-Bogaz-Gol Gulf and adjacent regions based  
on geophysical research data. Prikl. geofiz. no.32:213-223 '62.

(Kara-Bogaz-Gol (Gulf)—Geology, Structural)

(MIRA 15:7)

KORNEV, V.A.; LUTSUK, Ye.M.; SUNGUROV, A.M.

Basic characteristics of the tectonics of the Caspian Sea  
based on marine geophysical data. Sov.geol. 5 no.12:80-99  
D '62. (MIRA 16:2)

1. Nauchno-issledovatel'skaya morskaya geofizicheskaya  
ekspeditsiya Vsesoyuznogo nauchno-issledovatel'skogo instituta  
geofiziki.  
(Caspian Sea region--Geology, Structural)

BORISOV, A.A.; DIKENSHEYN, G.Kh.; KRAVCHENKO, N.Ye.; LOPATINA, N.P.;  
MALOVITSKIY, Ya.P.; KORNEV, V.A.

Basic features of the tectonics of the Caspian Sea and adjacent  
land areas. Geol. nefti i gaza 6 no.12:18-23 D '62. (MIRA 15:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut  
geofizicheskikh metodov razvedki i Vsesoyuznyy nauchno-  
issledovatel'skiy geologorazvedochnyy neftyanoy institut,  
Moskva.

(Caspian Sea region—Geology, Structural)



KORNEV, V.A.; NEPROCHNOV, Yu.P.

Tectonics of the northwestern part of the Black Sea based on  
geophysical and geomorphological studies. Biul.MOIP.Otd.geol.  
37 no.5:168-169 S-O '62. (MIRA 15:12)  
(Black Sea--Ocean bottom)

7) 015  
GRIGOR'YEV, V. (Rostovskaya obl.); LESNICHENKO, P. (L'vovskaya obl.);  
YAKUBEN', M. (Moskovskaya obl.); KITOV, P. (Khar'kovskaya obl.);  
KORNEV, V.F. (Mytishchinskiy radiouzel); BRATANOVSKIY, B. (Pavlo-  
vo-Posadskiy radiouzel).

Our complaints against the radio industry. Radio no.9:9 S '54.  
(MLRA 7:9)

1. Nachal'niki DRTS (for Grigor'yev, Lesnichenko, Yakuben', Kitov)
2. Nachal'niki radiouzelov Voskovskoy oblasti (for Kornev & Bratanovskiy)  
(Radio industry)

KORNEV, V.F.

How we obtain lower costs in the radio reception and rediffu-  
sion center. Vest.sviazi 16 no.9:13-15 8 '56. (MLRA 9:11)

1. Nachal'nik Mytishchinskogo radiouzla Moskovskoy oblasti.  
(Moscow Province--Radio)

USSR/Geophysics - Irrigation, Underground Feb 53

"Underground Irrigation," G. A. Belashov, Cand  
Econ Sci

Nauk i Zhizn, No 2, pp 11-12

States that more than 28 million hectares of dry land will be irrigated by new method of underground irrigation called underground condensation which was developed by V. G. Kornev and is based on the utilization of water vapor circulation occurring in the soil. Theoretical basis for this process was developed by Prof A. V. Lyvkov, winner of a Stalin prize.

271T76

PA 30/49T39

USSR/Electricity  
Machines, Drilling and Boring  
Drilling, High-Speed

Oct 48

"Demands Made Upon Electric Drilling Equipment Under  
High-Speed Drilling," V. I. Kornev, Krasnokamskneft',  
3 pp

"Energet Byul" No 10

Describes high-speed drilling at Krasnokamskneft',  
mentioning equipment used and speed attained.  
States conclusions.

30/49T39

KORNEV, V.I.; KOZHUSHKO, P.S.; CHEBOTAREV, N.I.

Improvement of the SM-733 gypsum mixer. Stroi. mat. 11 no.6:24-25 Je  
'65. (MIRA 18:7)

IVANOV-EMIN, B.N.; RYBINA, V.I.; KORNEV, V.J.

Solubility of thallium hydroxide in caustic soda solutions.  
Zhur.energ.khim. 10 no.4:1005-1008 Ap '65.

(MIRA 18:6)

GREKOV, P.N.; GRUZINOV, V.K.; KORNEV, V.K.

Effect of small fractions on the resistance of charge materials to  
the flow of gases. Trudy Ural. politekh. inst. no.105:30-36 '60.  
(Blast Furnaces Aerodynamics) (MIRA 14:3)



STARSHINOV, B.N.; OSTROUKHOV, M.Ya.; KOCHINEV, Ye.V.; Prinimali uchastiye:  
TARASOV, D.A.; SOROKA, P.F.; KARACHENTSEV, M.D.; OS'KIN, V.T.;  
KORNEV, V.K.; POPOV, Yu.A.; DOLMATOV, V.A.; AYUKOV, A.S.

Blowing-in of large blast furnaces. Sbor.trud. UNIIM  
no.11:27-32 '65. (MIRA 18:11)

BORISOV, Yu.S., kand. tekhn. nauk; KORNEV, V.K., inzh.; PUSHKASH, I.I., inzh.;  
YANTSEN, B.D., inzh.; PAREN'KOV, A.Ye.; ZAVARNITSYN, D.A.

Using liquid fuel in blast furnaces of the Nizhniy Tagil  
metallurgical combine. Stal' 25 no.6:497-503 Je '65.

(MIRA 18:6)

1. Nizhne-Tagil'skiy metallurgicheskiy kombinat i Ural'skiy  
nauchno-issledovatel'skiy institut chernykh metallov.

KORNEV, V.K.; KRYUCHKOV, V.V.

Tapping cast iron from blast furnace hearth bottoms. Metallurg 10  
no.4:4-6 Ap '65. (MIRA 18:7)

1. Nizhne-Tagil'skiy metallurgicheskiy kombinat.

GREKOV, P.N.; GRUZINOV, V.K.; KORNEV, V.K.

Methods of testing the gas-dynamic properties of charge materials.  
Izv. vys. ucheb. zav.; chern. met. no. 1:41-45 '61.  
(MIRA 14:2)

1. Ural'skiy politekhnicheskii institut.  
(Blast furnaces--Equipment and supplies)  
(Gas flow)

KOCHINEV, Ye.V.; STARSHINOV, B.N.; KORNEV, V.K.; POPOV, Yu.A.

Blowing-in of blast furnaces of a capacity of 1719 m<sup>3</sup>. Metallurg  
6 no.6:3-7 Je '61. (MIRA 14:5)

1. Gipromez; Ukrainskiy institut metallov; Nizhne-Tagil'skiy  
metallurgicheskiy kombinat i Chelyabinskiy metallurgicheskiy zavod.  
(Blast furnaces---Design and construction)

ACC NR: AP7002696

SOURCE CODE: UR/0424/66/000/006/0089/0097

AUTHOR: Grigolyuk, E. I. (Moscow); Kornev, V. M. (Novosibirsk)

ORG: none

TITLE: Substantiation of equations for sandwich plates of asymmetrical construction with rigid core

SOURCE: Inzhenernyy zhurnal. Mekhanika tverdogo tela, no. 6, 1966, 89-97

TOPIC TAGS: sandwich plate, structure stability, flat plate, sandwich structure, flexure, asymmetric body, vibration analysis

## ABSTRACT:

The flexure, vibration, and stability of a circular sandwich plate of asymmetrical structure with a rigid core is analyzed in linear formulation. A complete system of three equations describing the behavior of the plate derived by E. I. Grigolyuk and P. P. Chulkov (Izv. AN SSSR. Mekhanika i mashinostroyeniye, no. 1, 1964) is used in the analysis. The system was derived under following assumptions: the material of the core is laterally incompressible, the straightness of normals during deformation is preserved; the Kirchhoff hypothesis are valid for the face layers, and the Poisson ratios are the same for all layers. Thus, the shear stresses are uniform

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UDC: none

ACC NR: AP7002696

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over the core thickness. An approximate solution of the complete system is obtained by omitting its third equation, which accounts for the edge effect, and by establishing new (non-contradictory) boundary conditions for the incomplete system of two equations. The deflections of a circular asymmetrical sandwich plate under radial compression (without transverse loading), its natural frequencies, and buckling pressure are analyzed, the corresponding formulas are derived, and the results of calculations are compared with those of the exact solution (i.e., of the complete system of equations under the above-mentioned assumptions), and only small discrepancies are found in values of deflections, frequencies, and pressure under any edge-support conditions in cases when a certain nondimensional parameter  $d$ , which accounts for the pliability of the plate in shear, is sufficiently small. The new boundary conditions for the incomplete system are the limit problems for equations of the complete system for various boundary conditions when the parameter  $d$  tends to zero.

SUB CODE: 20/ SUBM DATE: 22May65/ ORIG REF: 004/ OTH REF: 003/  
ATD PRESS: 5113

Card 2/2

KORNET, V. P.

KORNET, V. P. -- "Underbrush Varieties in the Pine Forests of the Bryansk Training-Experimental Tree Farm." Sub 21 Feb 52, Inst of Forestry, Acad Sci USSR. (Dissertation for the Degree of Candidate in Agricultural Sciences).

So: Vechernaya Moskva January-December 1952

1. KORNEV, V. P.
2. USSR (600)
4. Grasses
7. Sorghum-Johnson grass hybrid on the sands and sandy soils of the middle Don area.  
Les. i step' 4 no. 10, 1952.

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



KORNEV, V.P.

Pine

Cultivating the Crimean pine in the sands of the middle Don. Les khoz. no/5, 1952

9. Monthly List of Russian Accessions, Library of Congress, August 1953/2 Uncl.

ZORNEV, V. P.

Tree Planting

Changes in underbrush with growing pine plantings. Les. Khoz. 5 no. 2(41), 1952.

9. Monthly List of Russian Accessions, Library of Congress, July <sup>1952</sup> ~~1953~~. Unclassified.

KORNEV, V. P.

Pine

Question of the role of underbrush in pine plantations. Pochvevedenie no. 9, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December <sup>1952</sup>~~1951~~. Unclassified.

1. KORNEV V. P.

2. USSR (600)

4. Oak

7. Snow cover is sure protection for oak against freezing. Les i step 14, No. 11. 1952

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

COUNTRY : USSR I  
 CATEGORY : PLANT PHYSIOLOGY. Photosynthesis.  
 ABS. JOUR. : REF ZHUR - BIOLOGIYA, NO. 4, 1959, No. 1,254  
 AUTHOR : Korney, V.P.  
 INST. : Bryansk Forestry Institute  
 TITLE : Apparatus for the Quantitative Determination  
 of Physiologically Active Light.  
 ORIG. PUB. : Tr. Bryanskogo lesokhoz. in-ta, 1957, 8,  
 255-256  
 ABSTRACT : A new type of photometer is described for  
 the determination of physiologically active  
 light for plants. At the base of this pho-  
 tometer is an oxygen-cesium photoelement  
 TsG-4, the maximal spectral sensitivities of  
 which are found in ranges of 350 - 45- and  
 650 - 800 mμ of the spectrum. The spectral  
 sensitivity of the photoelement TsG-4 is  
 close to the absorption spectrum of chloro-  
 : phyll. The objective and photoelement are

CARD: 1/2

KORNEV, V.P.

~~APPROVED FOR RELEASE: 06/14/2000~~ CIA-RDP86-00513R000824710013-5

Accumulation of phosphorus and potassium in tree and shrubby  
 leaves and their leaching out from litter during fall and winter  
 [with summary in English]. Pochvovedenie no.4:87-94 Ap '59.  
 (MIRA 12:7)

1. Bryanskiy lesokhozyaystvennyy institut.  
 (Leaves) (Minerals in soil) (Plants--Assimilation)

KORNEV, V.P.

Biochemical and enzymatic activity of forest litter in pine plantations. Pochvovedenie no.11:109-114 N '62. (MIRA 16:1)

1. Bryanskiy tekhnologicheskiy institut.  
(Forest litter) (Pine)

S/669/60/000/002/004/004  
D201/D308

AUTHORS: Devyatov, B.N. and Kornev, Yu.N.

TITLE: Determining the controllability of counterflow heat exchangers

SOURCE: Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut avtomatiki i electrometrii. Avtomaticheskii kontrol' i elektricheskiiye izmereniya, no. 2, 1960, 137 - 147

TEXT: By considering the basic equations of the transient processes and of the criterion of controllability of a counterflow heat exchanger, the authors derive an exact control criterion equation for the above type of heat exchangers in dimensionless coordinates characterizing the effect of the properties of moving media on the heat exchange process, the properties of the separating wall and the effect of the separation boundary and wall on the heat exchange process. Analysis of the controllability of the heat exchanger as a function of its parameters is restricted to processes which are not affected by the thermal capacity of the dividing wall, for which case

Card 1/2

22675

24,5200 (1498, 1537, 1385) S/200/61/000/001/001/005  
26,2181 D223/D305

AUTHORS: Devyatov, B. N., and Kornev, Yu. N. I.

TITLE: Determination of inertia and controllability of direct flow heat exchangers.

PERIODICAL: Akademiya nauk SSSR. Sibirskoye otdeleniye. Izvestiya, no. 1, 1961, 3-10

TEXT: Consideration of a direct flow (co-current) heat exchanger with regard to control as in the case of a counter-current as quoted by B. N. Devyatov and Yu. N. Kornev (Ref. 1: Opredeleeniye reguliruyemosti protivotochnykh teploobmennyykh apparatov (Determining the Controllability of Counter-current Heat Exchangers) Sb. tr. In-ta avtomatiki i elektrometrii SO AN SSSR. Vyp. 2 1961) entails determining its inertia and regulation. The solution of this problem was treated by the general consideration of the exchanger type "cylinder within a cylinder" as already given in Ref. 1 (Op. cit). As in the work of B. N. Devyatov (Ref. 2: Perekhodnyye rezhimy raboty nepreryvnodeystvuyushchikh teploobmennikov s tolstymi sten-  
Card 1/12

APPROVED FOR RELEASE: 06/14/2000

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22675

Determination of inertia...

S/200/61/000/001/001/005  
D223/D305

kami. (Transient Working Conditions of Continuously Acting Heat Exchangers with Thick Walls) DAN SSSR, t. 130 No 1 1960) the basic treatment of the equation of non-static processes has been considered including the effect of the thermal capacity of the wall separating two media. For the case of a "cylinder within a cylinder" of length  $l$ , the analysis of conditions is given by

$$\frac{\partial u_1}{\partial t} + w_1 \frac{\partial u_1}{\partial x_1} = k_1 (v - u_1),$$

$$\frac{\partial v}{\partial t} = k_2 (u_1 - v) + k_3 (u_2 - v),$$

$$\frac{\partial u_2}{\partial t} + w_2 \frac{\partial u_2}{\partial x_1} = k_4 (v - u_2), \quad (1)$$

Which are transformed in the form:  
которые преобразуются к виду:

$$\tau_1 = \frac{\partial u_1}{\partial t} + \frac{\partial u_1}{\partial x} = \alpha (v - u_1),$$

$$\frac{\partial v}{\partial t} = k_2 (u_1 - v) + k_3 (u_2 - v),$$

$$\tau_2 = \frac{\partial u_2}{\partial t} + \frac{\partial u_2}{\partial x} = \beta (v - u_2),$$

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Determination of inertia...

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$$\begin{aligned}
 a_{11} &= -\left( p \tau_1 + \alpha \cdot \frac{p + k_3}{p + k_2 + k_3} \right), & a_{12} &= \alpha \cdot \frac{k_3}{p + k_2 + k_3}, \\
 a_{22} &= -\left( p \tau_2 + \beta \cdot \frac{p + k_2}{p + k_2 + k_3} \right), & a_{21} &= \beta \cdot \frac{k_2}{p + k_2 + k_3}.
 \end{aligned}
 \tag{3}$$

The solution of Eq. 3 with calculated boundary conditions gives an expression for  $U_1$  in the operative form:

$$U_1(p) = e^{\frac{1}{2}(a_{11} + a_{22})} \cdot \left( \operatorname{ch} \frac{E}{2} \right) \left[ 1 - \frac{(a_{22} - a_{11})}{E} \cdot \operatorname{th} \frac{E}{2} \right],
 \tag{4}$$

where  
the

$$E(p) = \sqrt{(a_{22} - a_{11})^2 + 4a_{12}a_{21}}.$$

Considering the criterium of inertia,  $S$  is a general time constant and is understood as covering in its magnitude the period between the transitional and new uniform process. In such a case  $S$  is given by

$$\lim_{t \rightarrow \infty} u(t) = m, \tag{5}$$

$$S = \frac{1}{m} \int_0^{\infty} [m - u_1(t)] dt.$$

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Determination of inertia...

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D223/D305

Using this in conjunction with (4) the authors obtain the characteristic expression of the process inertia.

$$S = \lim_{m \rightarrow 0} \frac{1}{m} \frac{m - U_1(p)}{p}, \quad (6)$$

$$m - u_1(t) \quad dt \quad \frac{m - U_1(p)}{p}$$

Expression (6) possesses an indeterminable of the type  $\frac{0}{0}$  but this is avoided by means of the Lopital rule:

$$\text{or} \quad S = \lim_{p \rightarrow 0} \frac{1}{m} \left[ \frac{m - U_1(p)}{p} \right] = \lim_{p \rightarrow 0} - \frac{1}{m} \frac{dU_1(p)}{dp}, \quad (7)$$

или

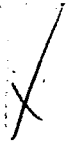
$$S = - \lim_{p \rightarrow 0} \frac{d}{dp} (\ln U_1).$$

Hence by means of (7) and the given value of  $U_1$ , in (4) the expression for the criterium of inertia is obtained.

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S/200/61/000/001/001/005  
D223/D305



Determination of inertia...

$$\begin{aligned}
 S = & \frac{1}{2} (\tau_1 + \tau_2) - \frac{1}{2} (\tau_1 - \tau_2) \frac{(\alpha - \beta\theta)(\beta\theta - \alpha e^{-\tau_1})}{(\alpha + \beta\theta)(\beta\theta + \alpha e^{-\tau_1})} + \\
 & + \frac{1}{2} (\tau_1 - \tau_2) \cdot \frac{4\alpha\beta\theta(1+\theta)(1-e^{-\tau_1})}{(\alpha + \beta\theta)^2(\beta\theta + \alpha e^{-\tau_1})} + \frac{\left[ \alpha\beta - \theta \left( \frac{\alpha - \beta}{1 + \theta} \right)^2 \right] (\beta\theta - \alpha e^{-\tau_1})}{2k_3(1 + e^{-\tau_1})(\alpha + \beta\theta)(\beta\theta + \alpha e^{-\tau_1})} + \\
 & + \frac{\left[ \alpha\beta - \theta \left( \frac{\alpha - \beta}{1 + \theta} \right)^2 \right] (\alpha - \beta\theta)(1 + \theta)(1 - e^{-\tau_1})}{2k_3(\alpha + \beta\theta)^2(\beta\theta + \alpha e^{-\tau_1})} + \\
 & + \frac{\alpha\theta + \beta}{2k_3(1 + \theta)^2} + \frac{(1 + e^{-\tau_1})(\alpha\theta - \beta)}{2k_3(1 + \theta)(\alpha e^{-\tau_1} + \beta\theta)}
 \end{aligned} \tag{8}$$

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$$\epsilon = \lim_{\rho \rightarrow 0} E(\rho) = \frac{\alpha + \beta\theta}{1 + \theta}, \quad \theta = \frac{k_2}{k_3}$$

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Determination of inertia...

By considering flow rates, the retardation time  $\tau$  could be seen to be equal to  $\tau_1$  for  $\omega_1 > \omega_2$  and to  $\tau_2$  for  $\omega_1 < \omega_2$ . Then if the thermal capacity of the wall can be ignored and  $S_3$  is small enough, the simplified expression for inertia is given in

$$S = (\tau_2 - \tau_1) \cdot \frac{\alpha\beta\theta(1 + e^{-\epsilon})}{(\alpha + \beta\theta)(\beta\theta + \alpha e^{-\epsilon})} \left( 1 - \frac{\text{th} \frac{\epsilon}{2}}{\frac{\epsilon}{2}} \right), \quad (10)$$

WHERE  
ГДЕ

$$\epsilon = \frac{\alpha + \beta\theta}{1 + \theta}$$

for which  $\omega_1 > \omega_2$ . Using  $\tau_2 - \tau_1$  for the time unit,  $S_1$  is expressed in non-dimensional units as  $T_1$

$$T_1 = \frac{\alpha\beta\theta(1 + e^{-\epsilon})}{(\alpha + \beta\theta)(\beta\theta + \alpha e^{-\epsilon})} \cdot \left( 1 - \frac{\text{th} \frac{\epsilon}{2}}{\frac{\epsilon}{2}} \right) \quad (11)$$

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Determination of inertia...

and hence the formula (10) assumes the form of

$$S_1 = (\tau_2 - \tau_1) T_1 \tag{12}$$

adding factor  $(\tau_1 - \tau_2)$  to  $S_1$  the author obtains the expression of characteristic inertia for a direct flow heat exchanger with flow rates  $\omega_1 > \omega_2$ :

$$S_2 = S_1 + \tau_1 - \tau_2 = (\tau_1 - \tau_2) (1 - T_1).$$

In that case the inertia expressed in non-dimensional units is given by

$$T_2 = 1 - T_1 \tag{13}$$

and inertia  $S_2$  assumes the form of

$$S_2 = (\tau_1 - \tau_2) T_2 \tag{14}$$

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Determination of inertia...

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To determine  $T_1$  and  $T_2$  nomograms are given which show a family of waves equal to inertias for the area parameters  $\rho_1, \rho_2$  given by

$$\rho_1 = \frac{a}{1+\theta}, \quad \rho_2 = \frac{\beta\theta}{1+\theta}$$

Ref. 1 (Op. cit) and B. N. Devyatov (Ref. 3: Opreleniye kharakteristiki inertsiionnosti i reguliruyemosti tekhnologicheskikh apparatov v svyazi s zadachey ob optimal'nykh parametrakh ob'yekta i regulatora (Determination of the Inertia Characteristics and the Controllability of Technological Equipment in Connection with the Problem of Optimal Parameters of a System and a Controller) Izv. AN SSSR. OTN, No. 5 1958) introduced the concept of object control which to an appreciable degree reflects on the dynamic properties of the processes in a heat exchanger

$$R = \frac{S}{\tau}, \quad (15)$$

where  $\tau$  is retardation time of transitional process in the cross-section of exchanger  $x = 1$ . There are 3 cases to be considered given in

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Determination of inertia...

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D223/D305а) для случая  $w_1 > w_2$   
БЗ CASE

$$R_1 = \frac{S_1}{\tau_1} = \left( \frac{\tau_2}{\tau_1} - 1 \right) T_1,$$

б) для случая  $w_1 < w_2$ 

$$R_2 = \frac{S_2}{\tau_2} = \left( \frac{\tau_1}{\tau_2} - 1 \right) T_2,$$

в) для случая  $w_1 = w_2$ 

$$R = 0.$$

where  $w_1$  and  $w_2$  = flow rates of media. The last case ( $w_1 = w_2$ ) has pure retardation as  $S = 0$ . This case, state the authors, is best for use in solving the control problem. By means of nomograms given above, values of  $T_1$ ,  $T_2$  can be found and their change with the change of parameters could be used in constructing the exchanger for most efficient and economical processing. Such a case is governed by  $F(\alpha, \beta) = 0$ , and the connection between  $\alpha$  and  $\beta$  is given by the quantity  $P$  as defined by:  
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Determination of inertia...

$$p = 1 - m = \frac{a(1 - e^{-a})}{a + \beta \theta} \quad (16)$$

In order to check theoretical deductions the authors give the results of practical work and state that these results agreed well with (8), (12) and (14). The article contains a short list of symbol values:  $u_1, u_2$  - temperature of the first and second media;  $v$  - temperature of the dividing wall;  $x_1$  - heat exchanger coordinate section, calculated in the direction of the first medium's movement;  $\omega_1, \omega_2$  - speed of media movement;  $k_1, k_2, k_3, k_4$  - proportionality coefficients of temperature changes;  $\rho_1$  - boundary perimeter of interface of wall and first medium;  $\rho$  - differentiating operator;  $\rho_2$  - boundary perimeter of interface of wall and second medium;  $k_1, k'$  - heat transfer coefficients;  $S_3$  - cross section area of dividing wall;  $\gamma_3$  - specific gravity of wall;  $C_3$  - heat capacity of wall. There are 3 figures and 3 Soviet-bloc references.

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Determination of inertia...

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AUTHORS: Devyatov, B.N., and Kornev, Yu.N.  
TITLE: Determination of transients in continuously operating heat-exchangers  
PERIODICAL: Akademiya nauk SSSR. Sibirskoye otdeleniye Izvestiya, no. 9, 1961, 21-27

TEXT: The errors in approximate representation of transient processes can be evaluated from experimental data. The lack of exact theoretical expressions does not permit, however, determining the origin and, therefore, the meaning of these errors. In the present article, the authors determine exact integral curves and solve the differential equations for the heat exchange which permit exact calculation of the transient for a unit pulse input in the same type of heat exchanger. Under the same assumptions and using the same notation the initial differential equations are

$$\frac{\partial u_1}{\partial t_1} + W_1 \frac{\partial u_1}{\partial x_1} = k_1 (u_2 - u_1),$$

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Determination of transients ...

$$\frac{\partial u_2}{\partial t_1} + w_2 \frac{\partial u_2}{\partial x_1} = k_2 (u_1 - u_2), \quad (1)$$

where  $u_1, u_2$  - temperatures of the 1st and 2nd medium respectively,  $k_1, k_2$  - proportionality factors of temperature change,  $x_1$  - the coordinate of the cross section of the instrument in the direction of the 1st medium movement  $t_1$  - time in seconds. The same equation (1) in dimensionless complex parameters has the form of

$$\tau_1 \frac{\partial u_1}{\partial t} + \frac{\partial u_1}{\partial x} = \alpha (u_2 - u_1),$$

$$\tau_2 \frac{\partial u_2}{\partial t} + \frac{\partial u_2}{\partial x} = \beta (u_1 - u_2), \quad (2)$$

where

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Determination of transients ...

$$\alpha = \frac{k_{11}}{w_1}, \quad \beta = \frac{k_{21}}{w_2}, \quad x = \frac{x_1}{l},$$

$$t = \frac{t_1}{|\tau_1' - \tau_2'|}, \quad \tau_1 = \frac{\tau_1'}{|\tau_1' - \tau_2'|}, \quad \tau_2 = \frac{\tau_2'}{|\tau_1' - \tau_2'|},$$

in which

$$\tau_1' = \frac{l}{w_1}; \quad \tau_2' = \frac{l}{w_2}; \quad \text{where } l - \text{length of the heat exchanger and}$$

$t = \frac{t_1}{\tau_1' + \tau_2'}$ ; the transient is assumed to exist at the output with a

temperature at the input being  $u_1$  and the problem is solved in all cases for the zero condition.  $u_1(0, x) = 0, u_2(0, x) = 0$ . With the counter flow present Eq. (2) takes the form of Eq. (3)

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