

39824  
S/057/62/032/008/013/015  
B104/B102

24-1300

AUTHOR: Lozgachev, V. I.

TITLE: Theory of molecular currents at low pressures. I. Flow of a rarefied gas through tubes with diaphragms

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 8, 1962, 1023 - 1031

TEXT: This flow is studied on the assumption that the mean free path of the molecules is longer than the dimensions of the tube. Neglecting adsorption on the walls of the tube and assuming uniform temperature distribution on them the outflow of the gas from a cylindrical tube of length  $l$  with circular openings  $s_1$  and  $s_2$  is studied. Thereby a relationship is established between the molecular density decrease along the wall and the penetration probability of the molecules through the tube in direct and reverse direction.

$$W_i(l) = \frac{6sl - 4s(R-2r) - \pi l^2(R-l)}{6sA_i - 4s(R-2r)B_i - \pi l^2(R-l)C_i} \quad (24)$$

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Theory of molecular currents...

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is obtained where

$$i=1, 2, R = \sqrt{l^2 + 4r^2}, A_1 = 1 + \frac{s_1}{s_2} \cdot \frac{s_2}{s} P_{r,r}^{0r}(l),$$

$$A_2 = 1 + \frac{s_2}{s_1} \frac{s_1}{s} P_{r,r}^{0r}(l), B_1 = 1 + \frac{s_1}{s_2} \frac{s_2}{s}, B_2 = 1 + \frac{s_2}{s_1} \frac{s_1}{s},$$

$$C_1 = 1 + \frac{s_1}{s_2} \frac{s_2 - 4s}{2s}, C_2 = 1 + \frac{s_2}{s_1} \frac{s_1 - 4s}{2s}.$$

$W_1(1)$  and  $W_2(1)$  are the penetration probabilities of a molecule from  $s_1$  to  $s_2$  or in reverse direction,  $r$  is the radius of the tube,  $r_{1,2}$  are the radii of the tube openings  $s_1$  and  $s_2$ . This formula holds for long tubes; it is modified for short tubes and a further relation is obtained for  $W$  which makes it possible to calculate the penetration probability of a molecule through a tube system. There are 2 figures and 1 table.

ASSOCIATION: Vsesoyuznyy institut mineral'nogo syr'ya Moskva (All-Union Institute of Mineral Raw Materials, Moscow)

Card 2/3

Theory of molecular currents...

S/057/62/032/008/013/015  
B104/B102

SUBMITTED: August 5, 1958 (initially)  
June 9, 1961 (after revision)

Card 3/3

LOZGACHEV, V.I.

Distribution of molecular beams on a plane during evaporation  
in a vacuum. Zhur.tekh.fiz. 32 no.8:1012-1022 Ag '62.

(MIRA 15:8)

1. Vsesoyuznyy institut mineral'nogo syr'ya, Moskva.  
(Molecular beams)

LOZGACHEV, V.I.

Theory of molecular beams at low pressures. Part 1. Flow of rarefied gases through pipes with diaphragms. Zhur.tekh.fiz. 32 no.8:1023-1031 Ag '62. (MIRA 15:8)

1. Vsesoyuznyy institut mineral'nogo syr'ya, Moskva.  
(Molecular beams) (Gas flow)

LOZGACHEV, V.I.

Theory of molecular flow. Part 2. Passage through vessels of arbitrary shape. Zhur. tekhn. fiz. 32 no.9:1123-1133 S '62.

(MIRA 15:9)

1. Vsesoyuznyy institut mineral'nogo syr'ya, Moskva.  
(Molecular beams)

S/076/63/037/003/011/020  
B101/B215

AUTHOR: Lozgachev, V. I.

TITLE: Effusion method for measuring vapor pressures

PERIODICAL: Zhurnal fizicheskoy khimii, v. 37, no. 3, 1963, 644-646

TEXT: It is suggested that the approximate equations of H. L. Johnston, A. R. Spaizer (Trans. Amer. Soc. Metals, 42, 287, 1950) and M. G. Kossman, I. Jarwood (J. Chem. Phys. 1, 1406, 1953) be replaced by an improved equation to eliminate errors in vapor pressure measurements by effusion:  $p_{eff}/p = (\alpha/Kf)\omega(\alpha)$ , where  $\alpha$  is the condensation coefficient,  $f = s_o/S$ ,  $s_o$  = surface of outlet,  $S$  = surface on which the vaporization process

takes place;  $\omega(\alpha)$  is the probability that one particle leaves the surface

and enters the vacuum, averaged over the entire vaporizer surface.

$k(l) = 1/(1 + l/r)$ , where  $l$  is the length of tube, holds for  $K$ . The  $K$  calculated for different  $l/r$  values are in good agreement with the data known from publications. The equation suggested above is applicable for various outlet sizes. There are 2 figures and 1 table.

Card 1/2

Effusion method for measuring vapor ...

S/076/63/037/003/011/020  
B101/B215

ASSOCIATION: Vsesoyuznyy institut mineral'nogo syr'ya (All-Union Institute  
of Mineral Raw Materials)

SUBMITTED: January 27, 1962

Card 2/2



LOZGACHEV, V.I. (Moskva)

Methods of measuring the pressure of vapors of low-volatility  
substances. Izv. AN SSSR. Otd. tekhn. nauk. Met. i topl. no.4:31-  
38 J1-Ag '61. (MIRA 14:8)

(Vapor pressure)  
(Volatility)

ENG(1) AFVL GH  
NR AP5001523

12 1964 000 011 0031 0034

Ye Zhigonsky, B. A. (Leningrad), Ye G.

A new device for determining the static and dynamic hardness of rocks under high pressure and rock pressures

IVUZ Neft' i gaz, no. 11, 1964 31-34

rock property, physicomaterial, rock property, high pressure press, hydrostatic press, rock pressure

The high pressures encountered in the drilling of deep wells have a significant effect on the physicomaterial properties of the rocks. The literature information available on this problem, partly due to the complexity and cost of the necessary

These devices usually consist of a complex chamber within which the necessary pressure is realized by means of liquids. In this paper, the authors propose a new device (see Fig. 1) of the type which is used in the study of the dynamic hardness of rocks under high pressure.

Dynamic pressure is modeled by a pressure controlled piston. The device is theoretically capable of realizing pressures in excess of

L 21923-65

ACCESSION NR: AP5001523

10,000 atm. An experimental model was built at the Groznenskiy neftyanoy Institut (Groznyy Petroleum Institute) and tested at up to 10,000 atm. The article discusses preliminary results with this device and outlines future tests which should clarify the form of which property should be taken as a measure of the hardness of rocks under static pressures. Orig. art. has 2 figures.

ASSOCIATION: Groznenskiy neftyanoy Institut (Groznyy Petroleum Institute)

DATE: 06May64      ENCL: 01      SUB CODE: IE 6S  
NO REF SOV: 002      OTHER: 000      ATD PRESS: 3166

2/3

DETINOVA, T.S.; LOZGACHEVA, V.A.

Mechanism of gonotrophic harmony in the common malaria mosquito  
(*Anopheles maculipennis* Mg.). Zool.zhur. 32 no.6:1178-1188 H-D '53.  
(MLRa 6:12)

1. Entomologicheskiy otdel Instituta malyarii, meditsinskoy parazitologii  
i gel'mintologii Ministerstva drazvookhraneniya SSSR. (Mosquitoes)

SIMONYANTS, L.Ye.; ZHLOBINSKIY, B.A.; LOZGACHEV, Ye.G.

The effect of plasticity on the disintegration of rocks.

Izv. vys. ucheb. zav.; neft' i gaz 7 no.3:19-23 '64.

(MIRA 17:6)

1. Groznenskiy neftyanoy institut.

SMILGA, Ya. [Smilga, J.] (Riga); LOZHA, V. [Loza, V.] (Riga)

Hemolytic test for the diagnosis of leptospirosis. In Russian.  
Vestis Latv ak no.4:159-162 '60. (EEAI 10:7)

1. Akademiya nauk Latvyskoy SSR, Institut mikrobiologii.  
(HEMOLYSIS AND NEMOLYSINS) (LEPTOSPIROSIS)

LOZHEBRIKH, G.O., kandidat tekhnicheskikh nauk.

Increasing the output of wool-carding machines. Tekst. prom. 17  
no.7:29-32 JI '57. (MIRA 10:9)  
(Carding machines) (Wool carding)

LOZHECHIKIN, M. P.

ca

8

Gold-ore deposits associated with asbestos-dolomite veins and serpentines of the Krestovaya Mount (South Ural; Solonovskii Valley). M. P. Lozhechkin. *Mineral. Sibir'sk. No. 6, 31-40 (1930).* Chem. comp., gen. formation and genesis of the deposits are discussed. Chas. Blanc

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

GROUPS: A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, AA, AB, AC, AD, AE, AF, AG, AH, AI, AJ, AK, AL, AM, AN, AO, AP, AQ, AR, AS, AT, AU, AV, AW, AX, AY, AZ, BA, BB, BC, BD, BE, BF, BG, BH, BI, BJ, BK, BL, BM, BN, BO, BP, BQ, BR, BS, BT, BU, BV, BW, BX, BY, BZ, CA, CB, CC, CD, CE, CF, CG, CH, CI, CJ, CK, CL, CM, CN, CO, CP, CQ, CR, CS, CT, CU, CV, CW, CX, CY, CZ, DA, DB, DC, DD, DE, DF, DG, DH, DI, DJ, DK, DL, DM, DN, DO, DP, DQ, DR, DS, DT, DU, DV, DW, DX, DY, DZ, EA, EB, EC, ED, EE, EF, EG, EH, EI, EJ, EK, EL, EM, EN, EO, EP, EQ, ER, ES, ET, EU, EV, EW, EX, EY, EZ, FA, FB, FC, FD, FE, FF, FG, FH, FI, FJ, FK, FL, FM, FN, FO, FP, FQ, FR, FS, FT, FU, FV, FW, FX, FY, FZ, GA, GB, GC, GD, GE, GF, GG, GH, GI, GJ, GK, GL, GM, GN, GO, GP, GQ, GR, GS, GT, GU, GV, GW, GX, GY, GZ, HA, HB, HC, HD, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, HO, HP, HQ, HR, HS, HT, HU, HV, HW, HX, HY, HZ, IA, IB, IC, ID, IE, IF, IG, IH, II, IJ, IK, IL, IM, IN, IO, IP, IQ, IR, IS, IT, IU, IV, IW, IX, IY, IZ, JA, JB, JC, JD, JE, JF, JG, JH, JI, JJ, JK, JL, JM, JN, JO, JP, JQ, JR, JS, JT, JU, JV, JW, JX, JY, JZ, KA, KB, KC, KD, KE, KF, KG, KH, KI, KJ, KK, KL, KM, KN, KO, KP, KQ, KR, KS, KT, KU, KV, KW, KX, KY, KZ, LA, LB, LC, LD, LE, LF, LG, LH, LI, LJ, LK, LL, LM, LN, LO, LP, LQ, LR, LS, LT, LU, LV, LW, LX, LY, LZ, MA, MB, MC, MD, ME, MF, MG, MH, MI, MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, MW, MX, MY, MZ, NA, NB, NC, ND, NE, NF, NG, NH, NI, NJ, NK, NL, NM, NN, NO, NP, NQ, NR, NS, NT, NU, NV, NW, NX, NY, NZ, OA, OB, OC, OD, OE, OF, OG, OH, OI, OJ, OK, OL, OM, ON, OO, OP, OQ, OR, OS, OT, OU, OV, OW, OX, OY, OZ, PA, PB, PC, PD, PE, PF, PG, PH, PI, PJ, PK, PL, PM, PN, PO, PP, PQ, PR, PS, PT, PU, PV, PW, PX, PY, PZ, QA, QB, QC, QD, QE, QF, QG, QH, QI, QJ, QK, QL, QM, QN, QO, QP, QQ, QR, QS, QT, QU, QV, QW, QX, QY, QZ, RA, RB, RC, RD, RE, RF, RG, RH, RI, RJ, RK, RL, RM, RN, RO, RP, RQ, RR, RS, RT, RU, RV, RW, RX, RY, RZ, SA, SB, SC, SD, SE, SF, SG, SH, SI, SJ, SK, SL, SM, SN, SO, SP, SQ, SR, SS, ST, SU, SV, SW, SX, SY, SZ, TA, TB, TC, TD, TE, TF, TG, TH, TI, TJ, TK, TL, TM, TN, TO, TP, TQ, TR, TS, TT, TU, TV, TW, TX, TY, TZ, UA, UB, UC, UD, UE, UF, UG, UH, UI, UJ, UK, UL, UM, UN, UO, UP, UQ, UR, US, UT, UY, UZ, VA, VB, VC, VD, VE, VF, VG, VH, VI, VJ, VK, VL, VM, VN, VO, VP, VQ, VR, VS, VT, VU, VV, VW, VX, VY, VZ, WA, WB, WC, WD, WE, WF, WG, WH, WI, WJ, WK, WL, WM, WN, WO, WP, WQ, WR, WS, WT, WU, WV, WW, WX, WY, WZ, XA, XB, XC, XD, XE, XF, XG, XH, XI, XJ, XK, XL, XM, XN, XO, XP, XQ, XR, XS, XT, XU, XV, XW, XX, XY, XZ, YA, YB, YC, YD, YE, YF, YG, YH, YI, YJ, YK, YL, YM, YN, YO, YP, YQ, YR, YS, YT, YU, YV, YW, YX, YY, YZ, ZA, ZB, ZC, ZD, ZE, ZF, ZG, ZH, ZI, ZJ, ZK, ZL, ZM, ZN, ZO, ZP, ZQ, ZR, ZS, ZT, ZU, ZV, ZW, ZX, ZY, ZZ



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

A LOZHECHKIN, M. P. 6

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

DATA ON THE CHEMICAL COMPOSITION OF GOLD CUPRIDE, M. P. LOZHECHKIN. *Compt. rend. acad. sci. U. R. S. S. R.* 24, 451-4 (1957) (in English).—Native gold cupride is mixed with gold argentide. The compn. of gold cupride can vary from  $Cu_2Au_3$  to  $Cu_3Au$ . S. Bradford Stone

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

15-57-1-958

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 1,  
153 (USSR)

AUTHOR: Lozhechkin, M. P.

TITLE: The Principal Faults in Exploratory Work and the  
Determination of Mineral Reserves (According to Data  
from GKZ)(?) [Osnovnyye nedostatki rabot po razvedke  
i opredeleniyu zapasov mestorozhdeniy poleznykh isko-  
payemykh (Po materialam GKZ)]

PERIODICAL: Sov. geologiya, Nr 49, 1955, pp 11-20.

ABSTRACT: The author remarks on the inadequate study of the  
geology and the structure of mineral deposits and  
adjoining districts. This lack is reflected in the  
absence of detailed geologic, geologic-structural,  
and morphological maps, and it is thus impossible to  
appraise the prospects of a deposit or properly to  
direct prospecting and exploratory work. He also  
comments on the inadequate coordination of geological  
exploratory work and the absence of composite studies

Card 1/3

15-57-1-958

The Principal Faults in Exploratory Work (Cont.)

on deposits and districts; the inadequate study of the possibilities of composite use of the mineral raw materials (of components and elemental admixtures); the absence of techniques for determining the density of points in an exploratory net for exploring the limits of the deposit; the absence of comparative data on exploratory work and actual production; the inadequate use of rapid methods for analyzing samples to obtain preliminary data on the content of useful components in the ores (a failure which leads to excessive loading of the chemical laboratories); the insufficiently broad use of geophysical work and the lack of direction in applying the results that are obtained. Drilling operations are not always carried out in sufficient volume and are commonly characterized by poor quality (low core recovery, extensive curvature of the drill hole, lack of sampling muds). During a number of exploratory operations on particular deposits, mining operations were not considered, thus making it impossible to judge the internal structure of the ore bodies and the variations in thickness and content. The technical study of mineral raw materials often lags behind exploration and delays the industrial utilization of deposits.

Card 2/3

15-57-1-958

The Principal Faults in Exploratory Work (Cont.)

Proper attention has not yet been given to the establishment of correct conditions. Reports are extremely cumbersome. In the study of a majority of deposits, there is no general plan for geological-exploration work, and this lack increases the time required for exploration, adds to the difficulty of discovering the general prospects for the deposit, and leads to excessive outlays of capital.

A. P. P.

Card 3/3

LOZHECHKO, A.

Golden ears of corn in the Moscow region. Nauka i zhizn' 30  
no.5:26-28 My '63. (MIRA 16:10)

ACC NR: AP7006716

(A)

SOURCE CODE: UR/0113/66/000/012/0016/0018

AUTHOR: Belen'kiy, Yu. B. (Candidate of technical sciences); Imasheva, N. P.;  
Furunzhiyev, R. I.; Lomako, D. M.; Lozhechnik, F. D.

ORG: Belorussian Polytechnical Institute (Belorusskiy politekhnicheskiy institut);  
Minsk Automobile Plant (Minskiy avtozavod); IM AN BSSR

TITLE: Effect of the damping properties of a tire on the vibration parameters of an  
automotive vehicle

SOURCE: Avtomobil'naya promyshlennost', no. 12, 1966, 16-18

TOPIC TAGS: machine vibration, vibration damping, tire, vehicle engineering

ABSTRACT: A method is proposed for calculating the effect which the improved damping  
properties of modern low-pressure multi-ply tires have on the vibration parameters of  
a motor vehicle. The mathematical analysis is based on the dynamic models shown in  
Figures 1 and 2. Figure 1 represents an oscillatory two-mass system while Figure 2  
is the dynamic model of a two-axle vehicle. The "Elektron" analog computer and the  
"Minsk-2" digital computer were used for solving the following system of differential  
equations describing the oscillatory motion of an  $n$ -axle vehicle:

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UDC: 629.113:629.11.012.5.001.5

ACC NR: AP7006716

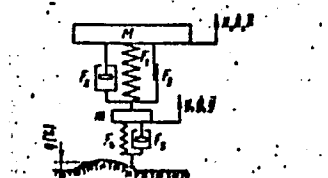


Fig. 1

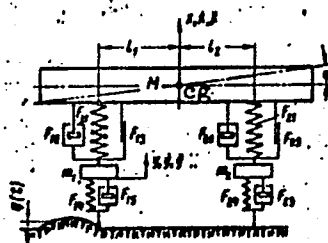


Fig. 2

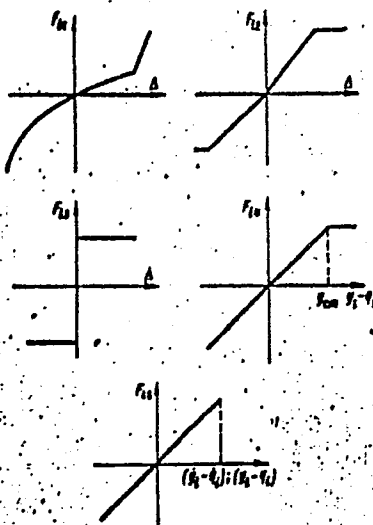


Fig. 3

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ACC NR: AP7006716

$$\ddot{x} + \sum_{i=1}^n \theta_i (F_{i1} + F_{i2} + F_{i3}) = 0;$$

$$\ddot{y} + \sum_{i=1}^n \lambda_i (F_{i1} + F_{i2} + F_{i3}) = 0;$$

$$\ddot{y}_i - \gamma_i (F_{i1} + F_{i2} + F_{i3}) + F_{i4} + F_{i5} = 0,$$

where  $i=1, 2, \dots, n$  is the ordinal number of the axis ( $n=2$  for a two-axle vehicle);  $F_{i1}, F_{i2}, F_{i3}$  are the characteristics of the elastic element, shock absorber and conventional "dry friction" unit;  $F_{i4}, F_{i5}$  are the elastic and damping characteristics of the tire. The forms of the tire characteristics are shown in Figure 3. A dynamic model of the MAZ-500 truck was selected as the object for study. It was found that raising the damping coefficient of the tire increases additional power expenditures on vertical oscillations of the vehicle. Computation of the power dissipated by the tire should be done in conjunction with calculation of the vibration parameters of the vehicle. The resultant data may also be used for evaluating the thermal conditions of a tire. Orig. art. has: 5 figures.

SUB CODE: 13 / SUBM DATE: None

Card 3/3



SOV/137-57-6-9945

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 6, p 88 (USSR)

AUTHORS: Baranovskiy, M.A., Lozhechnikov, Ye.B.

TITLE: Effect of Speed on the Deep Drawing Process (Vliyaniye skorosti na protsess glubokoy vytyazhki)

PERIODICAL: V sb.: Mashinostroitel' Belorussii. Nr 1 (2), Minsk, 1956, pp 43-46

ABSTRACT: An investigation is made of the effect of speed (S) upon the drawing (D) process when the forces are brought to bear by impact. The material employed is Nr-10 steel, of 0.5, 1.0, and 1.5-mm thickness. The dies used are 10 to 100 mm in diameter. Curves showing the relationship of the reduction ratio to the die diameter at various deformation S are presented. A fixture for determination of DS is described. The reduction ratio is not dependent upon the S during a single pass. In subsequent operations, if large objects are to be drawn without a hold-down, high S may also be employed. The temperature to which the item is heated in high-speed D impairs the conditions of lubrication and is inadequate to eliminate the work-hardening of items made of steel.

Card 1/1

A.M.

SOV/137-57-10-19133

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 100 (USSR)

AUTHOR: Lozhechnikov, Ye.B.

TITLE: Influence of Speed on Deep-drawing Process (Vliyaniye skorsti na protsess glubokoy vytyazhki)

PERIODICAL: Sb. stud. nauchn. rabot. Belorussk. politekhn. in-t, 1957, Nr 3, pp 9-10

ABSTRACT: Drawing without a hold-down is performed on a vertical impact-testing machine with a maximum rate of motion of 7.65 m/sec, and on an IZh-50 hydraulic press at the usual speeds. An increase in speed during the first pass has a very negligible effect upon the reduction ratio. A point of inflection is found on the graph of reduction ratio versus die diameter showing the conditions under which the use of a hold-down is necessary.

M.Ts.

Card 1/1

SOV/137-57-11-21347

Translation from: Referativny zhurnal, Metallurgiya, 1957, Nr 11, p 101 (USSR)

AUTHOR: Lozhechnikov, Ye.B.

TITLE: An Investigation Into Certain Questions of Plastic Deformation  
(Issledovaniye nekotorykh voprosov plasticheskoy deformatsii)

PERIODICAL: Sb. stud. nauchn. rabot. Belorussk. politekhn. in-t, 1957,  
Nr 3, pp 17-19

ABSTRACT: Experimentally determined relationships between unit pressure in metal flow and the volumes of the specimens are adduced. These data may be employed in determining characteristics required for deformation of equipment.

Ya.O.

Card 1/1

LAPIN, N.A., inzh.; LOZHECHNIKOV, Ye.B., inzh.

Standard types of multiple-bucket loaders. Stroi. i dor. mashinostr.  
3 no.9:13-15 S '58. (MIRA 11.10)

(Road machinery)

LOZHECHNIKOV, Ye.B., inzh.

The D-415 tractor-drawn multiple-bucket loader. Stroi. i dor.  
mashinostroi. 4 no.3:17-18 Mr '59. (MIRA 12:4)  
(Road machinery)

LOZHECHNIKOV, Ye.B., inzh.

~~Modern Foreign~~ bucket loaders. Stroi. i dor.mashinostr. 4  
no.6:38-39 Ja '59. (MIRA 12:8)  
(Earthmoving machinery)

14(2),12(4)

SOV/100-59-5-8/14

AUTHOR: Lozhechnikov, Ye.B., Engineer.

TITLE: Self-Propelled Loaders

PERIODICAL: Mekhanizatsiya stroitel'stva, 1959, No 5, pp 22-25 (USSR)

ABSTRACT: The article gives a list of the existing types of single bucket self-propelled loaders and a list of multi-bucket self-propelled loaders showing the technical characteristics of each type of loader. It further describes the latest types of loaders produced by the principal Soviet Plants: 1) Khar'kovskiy zavod dorozhnykh mashin (Khar'kov Road Building Machine Plant) starts serial production of the loading bulldozer D-443 designed for taking 10 different types of mounted equipment. 2) Berdyanskiy zavod dorozhnykh mashin (Berdyanskiy Road Building Machine Plant) has completed tests of a single bucket tractor type loader D-451 (illustrated on front cover) which is a development of the D-380; it has the back axle of the chassis ZIL-150 with balloon tires 12-20; the front axle is from the chassis ZIL-151; the gear box is from the chassis GAZ-51 and the cardan shafts from the chassis GAZ-51 and ZIL-150. The loader D-451 can take 13 different types of mounted equipment including 3 different sizes of buckets. 3) Bryanskiy zavod dorozhnykh mashin (Bryansk Road Building Machine Plant) has started producing self-propelled

Card 1/2

Self-Propelled Loaders

3W/100-59-5-8/14

multi-bucket loading tractor D-415 with mixing machine D-370 and drying drum D-381. The D-415 is designed in such a way as to be able to push mixer and drum in front of it; the loading tractor is a development of loader D-371 being equipped with a Diesel engine. As a distinctive feature of the D-415 should be considered the floating construction of the elevator on the chassis, which adjusts itself to the profile of the ground independently of the position of the chassis. 4) Minskiy zavod "Udarnik" (Minsk Plant "Udarnik") turns out a multi-bucket loader mounted on the chassis T-166M, which is intended chiefly for unloading RR platforms: it is equipped with a worm feeder, a bucket elevator and a revolving belt conveyor. The T-166M has front and rear wheel drive. A new type now being designed will be the D-452 which is a development of the D-451. The Plant turned out experimental models of type D-353 which is similar to the T-166M, but equipped with Diesel electric drive. There are: 4 photos, 2 tables and 2 Soviet references.

Card 2/2



GATOV, D.M., inzh.; LOZHECHNIKOV, Ye.B., inzh.

Diesel-electric bucket loader. Mash.Bel. no.6:29-32 '59.  
(MIRA 13:6)

(Conveying machinery)

VOLCHEK, Ya.A.; LOZHECHNIKOV, Ye.B.; BERNSHTEYN, M.D.; BAZANOV, A.F.,  
kand. tekhn. nauk, retsentsent; OTDEL'NOV, P.V., red. izd-va;  
GORDEYEVA, L.P., tekhn. red.

[Automotive loaders] Samokhodnye pogrushchiki. Moskva, Gos.  
nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1963. 242 p.  
(MIRA 16:6)

(Loading and unloading--Equipment and supplies)

S/250/63/007/001/004/005  
A006/A101

AUTHORS: Severdenko, V. P., Lozhechnikov, Ye. B.

TITLE: Distribution of specific pressure over the grip arc in rolling iron powder strips

PERIODICAL: Doklady Akademii nauk BSSR, v. 7, no. 1, 1963, 27 - 29

TEXT: If the distribution of specific pressure on the rolls over the grip arc is known, the resultant of metal pressure on the rolls and its location can be determined. These factors are required to calculate the working stand, the transmission and power of a rolling mill drive. Iron powder strips were rolled on a special rolling mill with 180 mm diameter rolls. The roll barrel was 180 mm long. The motor power was 13 kw. The rolling speed was 0.055 m/sec. A special roll with an incorporated dynamometer was used to determine directly the distribution of specific pressure. The EM(EM) powder employed was additionally reduced at 800°C, in dissociated ammonia atmosphere. The powder was rolled to 0.8 - 1.47 thick, 90 mm wide strips of 6.3 to 4.5 g/cm<sup>3</sup> density. The pressure of the powder on the rolls was non-uniform. Initially pressure increased smoothly

Card 1/2

Distribution of specific pressure over...

S/250/63/007/001/004/005  
A006/A101

from zero to a given value, and rose then to a maximum. The drop of pressure from the maximum to zero was even more abrupt over an arc corresponding to angles  $1^{\circ}20'$  -  $2^{\circ}30'$ . Comparison tests show that in rolling iron powder to 0.8 - 1.47 mm thick strips, the maximum specific pressure over the grip arc is 20 - 25% below that of strips pressed to analogous density. There are 2 figures.

ASSOCIATION: Fiziko-tekhnicheskii institut AN BSSR (Physical Engineering Institute of AS BSSR)

SUBMITTED: October 16, 1962

Card 2/2

L 16612-63

EWP(k)/EWP(q)/EWT(m)/BDS AFFTC/ASD PF-4 JD/HW

S/250/63/007/004/005/005

62  
61AUTHOR: Severdenko, V. and Lozhechnikov, Ye.TITLE: Forward slip in rolling powdered-metal stripPERIODICAL: Akademiya Nauk BSSR. Doklady. v. 7, <sup>14</sup>no. 4, 1963, 244-246

TEXT: Forward slip in the rolling of powdered-metal strip was investigated on a special rolling mill with rolls with diameter of 120, 150, and 180 mm, of 40KhN steel. The powders, of PZh4MZ iron and PM-2 copper, were rolled into strips 90 mm wide. Investigations revealed that in such cases forward slip depends on the density of the strip, increasing as it increases. Similarly, as the roll diameter increases, forward slip increases. In cases where powdered-metal strip is rolled with one roll working and the other idle, forward slip differs for the working and idle rolls. The authors experiments revealed that forward slip for the working roll, when rolling an iron-powder strip increases from 0.43% for strip density of 5.5--6.5 g/cm<sup>3</sup> to 1% for strip density of 7--7.2 g/cm<sup>3</sup>, for the working roll. The corresponding figures for the idle roll are from 1.5 to 5.7%, respectively. When rolling copper-powder strip, however, the forward slip for the working roll changed from 0.01 to 0.02%, and for the idle roll, from 0.75 to 1.57%.

Card 1/2

L 16612-63

1  
S/250/63/007/004/005/005

Forward slip in rolling...

The higher forward slip in the idle roll is due to the fact that the rolled metal rotates the roll by friction forces. There are 2 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN BSSR (Engineering-Physics Institute, Academy of Sciences, Belorusskaya SSR)

SUBMITTED: February 27, 1963

Card 2/2

LOZHECHNIKOV, Yevgeniy Borisovich, kand. tekhn. nauk; NEKHAY,  
V.T., red.

[Production and use of ceramic metal articles in the  
manufacture of machinery; methodological instructions and  
lectures on the course "Processing and use of new mate-  
rials in the manufacture of machinery" (topic no.1)] Pro-  
izvodstvo i primeneniye metallokeramicheskikh izdelii v  
mashinostroenii; metodicheskie ukazaniya i lektsii po  
kursu "Obrabotka i primeneniye novykh materialov v mashino-  
stroenii" (tema I). Minsk, Izd-vo "Vysshaya shkola," 1964.  
55 p. (MIRA 17:12)

SEVERDENKO, V.P.; LOZHECHNIKOV, Ye.B.

Energy in the rolling of a powder metal strip. Dokl. AN BSSR 7  
no.11:775-778 N 163. (MIRA 17:9)

1. Fiziko-tehnicheskiy institut AN BSSR i Belorusskiy politekh-  
nicheskiy institut.



ACCESSION NR: AP4049078

3701367647000/01170088/0090

AUTHOR: Severdenko, V. P.; Lozhechikov, Ye. B.; Shelamov, V. A.

TITLE: Rolling SAP foil directly from powder

SOURCE: Tsvetny<sup>18</sup>\*ye<sup>25</sup> metally\*,<sup>18</sup> no. 11, 1964, 88-90

TOPIC TAGS: aluminum powder, APS-1<sup>18</sup> aluminum powder, SAP strip, SAP foil, SAP strip rolling, SAP foil rolling, optimum rolling technology

ABSTRACT: Two variants of making SAP strip and foil directly from aluminum powder have been tried. In the first variant, green strip was rolled with the powder and rolls at room temperature. The highest density of green strip (2.35 g/cm<sup>3</sup>) with no breaks or cracks was achieved by rolling at a speed of 0.055 m/sec and a gap between rolls (the strip thickness) of 2.3 mm. In the second variant, the powder was preheated to 450—500C, and the rolls and bunker were kept at 100C. High-quality strip with a density of 2.4 g/cm<sup>3</sup> was produced at a rolling speed of 0.023 m/sec. Hot-rolled and cold-rolled strips were rolled into foil, up to 150 μ thick, with a 10% max reduction per pass and with process annealing at 450C after each pass. The foil

Card 1/2

1 19625-65

ACCESSION NR: AP4049078

had a density of 2.8—2.9 g/cm<sup>2</sup> and a tensile strength of 5 kg/mm<sup>2</sup> at 500C. Annealing of the strip at 600C for 3 hr before final rolling increased the tensile strength of the foil to 4 kg/mm<sup>2</sup>, but eliminated blistering and flaking which otherwise would occur in high-temperature annealing. Annealing at 600C for 3 hr caused recrystallization in the foil and a further decrease in tensile strength to 3 kg/mm<sup>2</sup>. The technology recommended for rolling APS-1 aluminum powder into SAP foil up to 150  $\mu$  thick consists of cold or hot rolling of powder into strips about 2.5 mm thick, annealing at 620C for 3 hr, and final hot rolling with a 10% max reduction per pass, with process annealing after each pass. Foil up to 100 mm wide and several meters long was made by the same technology. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL. 00

SUB CODE: MK

NO REF SOV: 007

OTHER: 001

ATD PRESS: 3147

Card 2/2



ACCESSION NR: AP4049065

ity of the bands and compacts demonstrated that the maximal rolling pressure  
is appreciably less than the operating pressure in all instances -  
approximately (4.5-5 g/cm<sup>2</sup>). The maximal rolling pressure was 22-25%

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..... (Year) ..... of science and technology BSSR,

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..... powder metallurgy, power .....  
..... pressure

The main aim of this article was to describe the progress which has

NR: AT5006710

The authors describe investigations carried out at the Belorussian

ACCESSION NR: AT5006710

rolling powders, i.e., the energy in kilowatts consumed for rolling 1 ton of strip.  
has: 8 figures and 7 formulas.

None

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OTHER

1008 104

008

OTHER

Card 3/3 MB

1984-02 EWT 11/10/84

REF ID: A55017011

821.771.24+821.761

REF: Ref. zh. Metallurgiya, Abs. 1984

Author: Severdenko, V. F.; Lozhechnev, Ye. P.; Zhuravov, V. A.

Rolling SAP strip directly from water

CITED SOURCE: Tr. 7 Vses. nauchno-tekhn. konferentsii po poroshk. metallurgii. Moscow, 1964, 290-295

Abstract: aluminum powder, aluminum powder, water

Annotation: Tests are described on rolling of aluminum powder into strip directly from water with different rolling conditions.

Card 1/1



ЛОДНИКОВ, Я.В., канд. техн. наук

Calculating stresses on the running part of multitucke  
loaders. Stroi. i dor. mash. 9 no. 1:16-17 Ja '64.

(MIRA 18:7)

SMOLIKOVA, L. (Chekhoslovaliya); LOZHEK, Vojen [Lozhok, V.] (Chekhoslovaliya)

Stratigraphic and paleoclimatic significance of Quaternary  
fossil soils in Central Europe. *Biul. Kom. chetv. per. no.30:*  
26-46 '65. (MIRA 19:2)

SHOSTAKOVSKIY, M.F.; VLASOV, V.M.; LOZHENITSYNA, A.S.; GAVRILOVSKAYA, A.A.

Synthesis of primary-tertiary acetylenic  $\epsilon$ -glycols. Izv. AN SSSR.  
Ser. khim. no.4:709-712 '65. (MIRA 18:5)

1. Irkutskiy institut organicheskoy khimii Sibirskogo otdeleniya  
AN SSSR.

9.9700'

S/169/62/000/009/049/120  
D228/D307

AUTHORS: Van'yan, L. L., Morozova, G. M. and Lozhenitsyna, L.V.

TITLE: Theoretical curves of the induced polarization method

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 39, abstract 9A261 (Geologiya i geofizika, no. 10, 1961, 118-123)

TEXT: The induced polarization phenomenon is considered as a quasi-static process, describable by Laplace's equation. Electric dipoles, arising within a polarizing body under the action of the field current, are presumed to be the sources of the induced polarization's emf. When calculating theoretical curves, a change is made from the volume distribution of secondary dipoles to the surface distribution of charges. The main quantity studied in induced polarization vertical electric sounding is the apparent polarizability  $\eta_{app}$ .  $\eta_{app}$  is calculated on the basis of the formula given for its magnitude (which is correct when the polarizability values

✓c

Card 1/2

Theoretical curves of ...

S/169/62/000/009/049/120  
D228/D307

of separate beds are low); the calculation's basis is the expression of the subintegral function through hyperbolic cotangents. The theoretical curves of  $\eta_{app}$ , computed from the derived formula, are compared with the corresponding curves of vertical electric sounding. It is noted that the curves of  $\eta_{app}$  possess a high resolving power. [Abstracter's note: Complete translation.]

✓c

Card 2/2

VAN'YAN, L.L. ; MOROZOVA, G.M.; LOZHENITSYNA, L.V.

Frequency sounding above an anisotropic bed. Trudy Inst. geol.  
i geofiz. Sib. otd. AN SSSR no.39:68-75 '64. (MIRA 18:4)

VAN'YAN, L.L.; MOROZOVA, G.M.; LOZHENITSYNA, L.V.

Theoretical curves of the induced polarization method.  
Geol.i geofiz. no.10:118-123 #61. (MIRA 14:12)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR,  
Novosibirsk.

(Polarization(Electricity))

SHEREDEKO, V.M., inzh.; LOZHESHNIK, V.K., inzh.; ASKINAZI, Z.M., inzh.

Improved methods of removing samples of oils and fats. Masl.-zhir.  
prom. 24 no. 6:41 '58. (MIRA 11:7)

1. Knybyshevskiy zhirovoy kombinat (for Sheredeko, Lozheshnik).
2. Leningradskiy zavod "Salolin" (for Askinazi).  
(Oils and fats)



LOZHESHNIK, V.K., inzh.

Deodorizing whale fat before hydrogenation. Masl. - zhir, proc.  
27 no.12:36 D '61. (MIRA 14:12)

1. Kuybyshevskiy zhirovoy kombinat.  
(Whale oil)

LOZHESHNIK, V.K., inzh.

Defattening of technical phosphatides in ISA-3 separators.  
Masl.-zhir.prom. 28 no.9:36 S '62. (MIRA 15:9)

1. Kuybyshevskiy zhirovoy kombinat.  
(Phosphatides)

GLADKAYA, V.F., inzh.; KOZHEVNIKOVA, I.M., inzh.; LOZHESHNIK, V.K., inzh.;  
KAPLUNOV, S.Z., inzh.

Processing of whale oil. Masl.-zhir.prom. 29 no.11:43-46 N '63.  
(MIRA 16:12)

1. Ukrainskiy nauchno-issledovatel'skiy institut maslozhirovoy  
promyshlennosti (for Gladkaya, Kozhevnikova). 2. Kuybyshevskiy  
zhirovoy kombinat (for Lozheshnik). 3. Kitoboynaya flotiliya  
"Slava" (for Kaplunov).

22(3), 6(1)

SOV/178-58-7-7/24

AUTHORS: Lozhko, K., Guards Colonel; Komarov, P., Guards Lieutenant Colonel; Lozhichevskiy, A., Guards Major

TITLE: The Radio Training (Area) is the Foundation of the Training-Material Basis (Radiopoligon - osnova uchebno-material'noy bazy)

PERIODICAL: Voyenny svyazist, 1958, Nr 7, pp 20 - 24 (USSR)

ABSTRACT: The authors describe the equipment and operating procedures of a radio training (area) located about 10 km from the permanent quarters of a Signal Corps unit of the Soviet Army. The radio stations used for training are operated from shelters and trenches. The training ground is operated from a central control point from which all radio stations receive instructions. The switchboard used for this purpose is shown in Figure 1 and its circuit arrangement in Figure 2. For creating combat-like conditions, a jamming transmitter is used, consisting of a SO-241

Card 1/2

SOV/178-58-7-7/24

The Radio Training (Area) is the Foundation of the Training-Material Basis

master oscillator, a SO-257 power amplifier and a SO-257 modulator. The soldiers undergoing training are billeted at the training ground. Class-rooms for theoretical instructions are also available. There are 2 photographs and 2 circuit diagrams.

Card 2/2

LOZHICHEVSKIY, A. A.

The planning and preparation of metal molds Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-r. 1951. 241 p. (52-19098)

TS240.L7

LOZHICHEVSKI, A. S.

Metallicheskie modeli. Moskva, Mashgiz, 1949. 293 p. diags.

Bibliography: p. 292.

Metallic patterns.

DLC: TS240.L69

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

LOZHICHEVSKIĬ, A. S. and M. E. ERSHOV.

Proektirovanie i izgotovlenie metallicheskikh form. Moskva, Mashgiz, 1951. 241 p. diagrs.

Designing and manufacturing metallic molds.

DLC: TS240.L7

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.



PHASE I BOOK EXPLOITATION 1026

Lozhichevskiy, Aleksey Simonovich

Metallicheskiye modeli; proyektirovaniye i izgotovleniye (Metal Patterns; Design and Fabrication) 2d ed., enl. Moscow, Mashgiz, 1958. 349 p. 6,000 copies printed.

Reviewer: Sergeyev, V.S., Engineer; Ed. of Publishing House: Sirotin, A.I., Engineer; Tech. Eds.: Gerasimova, Ye.S., and Uvarova, A.F.; Managing Ed. for literature on heavy machine building (Mashgiz): Golovin, S.Ya., Engineer.

PURPOSE: This book is intended for engineering and technical personnel in foundries and pattern shops as well as for students of teknikums and vtuzes.

COVERAGE: The book contains the fundamentals of design and manufacture of casting equipment. The engineering considerations for design and the special features of construction of various equipment are discussed. The organization, equipment and tools of pattern shops, the development of techniques, and the manufacture and putting into operation of casting accessories are also discussed. No personalities are mentioned. There are no references.

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Metal Patterns (Cont.)

1026

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1026

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AVAILABLE: Library of Congress

Card 4/4

GO/fal  
1-16-59

PETRUNIN, A.M.; LOKTIONOVA, N.A.; AL'TMAN, M.B., rukovoditel' raboty;  
Prinimali uchastiye: LOZHICHEVSKIY, A.S.; SHKROB, V.A.; POSTNIKOV,  
A.S.; ARBUZOV, B.A.; PANTYUSHKOVA, N.S.; POBOCHINA, T.V.;  
PATRUSHEV, L.M.

Mastering the production of large Al8 alloy castings. Alium.  
splavy no.1:150-159 '63. (MIRA 16:11)

LOZHIKOVA, K.

Expand the utilization of waste wood as a fuel and a source of  
chemicals. *Gidroliz. i lesokhim.prom.* 14 no.3:29 '61.  
(MIRA 14:4)

(Waste wood---Congresses)

LOZHIKOVA, K.V.

At the All-Union Council on the problem of the utilization of  
pentosan-containing raw materials. *Gidroliz. i lesokhim.prom.*  
13 no.7:30 '60.

(MIRA 13:10)

(Wood--Chemistry) (Pentosans)

LOZHIKOVA, K.V.

First interfactory school for the exchange of experience in the  
fodder yeast industry. *Gidroliz. i lesokhim. prom. 14 no.8:*  
29-30 '61. (MIRA 16:11)



ISHIKOVA, K.V.

Thirty-ninth session of the Scientific Council of the Central  
Wood-Chemical Scientific Research Institute. Gidroliz. 1  
Izvestiya. prom. 17 no. 4330-31 '62 (MIRA 1787)

LOZHKIN, A.F. 18

A. GEORGE STEIN  
 Obtaining thiosulfate from the arsenic-soda solutions used in freeing coke-oven gas from sulfur. N. N. Polyakov and A. F. Lozhkin. *J. Chem. Ind. (U. S. S. R.)* 17, No. 4-5, 55-9 (1940).—Sols. of  $\text{Na}_2\text{As}_2\text{S}_5\text{O}$  after use contain considerable amts. of  $\text{Na}_2\text{S}_2\text{O}_3$  and  $\text{NaSCN}$ . These sols. are evapd. at 400-500 mm. and 80-90° to d. 1.45, filtered and cooled rapidly to 15-20°. They give 80% of their  $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$  contg. 2-3%  $\text{NaSCN}$  and 0.2-0.3%  $\text{As}_2\text{O}_3$ . After 1 recrystn. from  $\text{H}_2\text{O}$ , the  $\text{Na}_2\text{S}_2\text{O}_3$  is 99% pure, with loss of a further 10% in the total yield.  
 H. M. Leicester

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS  
 COMMON YANIBELL NOTE

1ST AND 2ND COLUMNS  
 3RD AND 4TH COLUMNS

FROM BOWLING  
 FROM BOWLING

FROM BOWLING  
 FROM BOWLING

AUTHORS: Lozhkin, A. F., Subocheva, N. L. SOV/156-58-2-45/48

TITLE: Reduction Burning of the Chiatyry Manganese Ores by Means of Gases (Vosstanovitel'nyy obzhig chiaturskoy margantsevoy rudy s pomoshch'yu gazov)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 2, pp. 381 - 384 (USSR)

ABSTRACT: For the production of artificial manganese dioxide (iskusstvennaya dnuokis' margantsa = IDM) oxidized manganese ores are subjected to a reduction burning in periodically fed furnaces. Usually solid fuel (coke, coal) is used as reducing agent. The reduction of pyrolusite aims at the formation of compounds which are easily soluble in sulfuric acid. In order to intensify this phase of operation and to establish a continuous process burning tests of the ore were carried out by means of solid fuel, hydrogen and generator gas. The results may be of interest for plants disposing of gas - reduction - apparatus. Table 1 shows the analysis of manganese ore of different fractions, figures 1-3 illustrate the results of the burning tests. The data of figure 1 give

Card 1/4

Reduction Burning of the Chiatory Manganese Ores by  
Means of Gases

SOV/156-58-2-45/48

evidence of the important role of the volatile coal components in the reduction process. At 500 - 600° a relatively calm precipitation of the volatile substances in a nitrogen atmosphere takes place. In this connection hydrogen, methane and other hydrocarbons have time enough to enter interaction with pyrolusite. Above 600° a violent precipitation of the volatile substances from the coal takes place. In some cases they have no time to enter the mentioned interaction. This fact probably explains the smaller degree of reduction in the range of from 600 - 800° (Fig 1). An increase of reduction in the range of from 800 - 1000° is explained by the acceleration of the reduction process. Figures 2 and 3 show that the degree of reduction caused by hydrogen increases with the increase of temperature, with the concentration of hydrogen and with the duration of the action. Table 2 shows results of experiments with ore picked out according to fractions graded with a 1 mm interval. They agree with the rules of diffusion kinetics. The following conclusions may be drawn from table 3: 1) At a temperature of 700° in the reaction zone and in the case of a duration

Card 2/4

Reduction Burning of the Chiatury Manganese Ores by  
Means of Gases

SOV/156-58-2-45/48

of the processing of approximately 2 hours a small excess of the reducing gas guarantees a high degree of reduction of pyrolusite of the 1-2 mm fraction. The introduction of a burning process into a mobile layer under a counter flow of ore and gas makes possible to reduce the burning time by 3-4 times as compared to the periodical feeding of the furnace. It establishes favorable conditions for the mechanization and automation of this phase of operation. There are 4 figures, 3 tables, and 3 references, 2 of which are Soviet.

ASSOCIATION: Kafedra tekhnologii neorganicheskikh veshchestv Permskogo gosudarstvennogo universiteta (Chair for the Technology of Inorganic Substances of the Perm' State University)

SUBMITTED: December 13, 1957

Card 3/4

Reduction Burning of the Chiatury Manganese Ores by  
Means of Gases

SOV/156-58-2-45/48

Card 4/4

5(1,2)

SOV/153-2-4-32/32

AUTHORS: Lozhkin, A. F., Subocheva, N. L.

TITLE: Reducing Burning of Pyrolusite by Means of Gases in a Movable Layer

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 4, pp 642 - 646 (USSR)

ABSTRACT: The usual industrial method of the above mentioned burning of manganese ores in the production of synthetic manganese oxide shows considerable shortcomings. In order to intensify this process, this way of burning was investigated by means of hydrogen and generator gas as reducers in a stationary as well as in a movable layer. The gaseous phase is supposed to play an important role in this process according to P. V. Gel'd and O. A. Yesin (Refs 1,2). Reduction takes place without previous dissociation according to Ye. P. Tatiyevskaya, G. I. Chufarov, and V. K. Antonov (Refs 3,4). It is certain that the  $MnO_2$ -reduction by means of CO or  $H_2$  proceeds quickly and completely between 527 and 700°. The reaction products  $CO_2$ ,  $H_2O$ , and MnO are formed. The authors determined the reduction rate of manganese ore depending on the burning conditions in special

Card 1/3

Reducing Burning of Pyrolusite by Means of Gases  
in a Movable Layer

SOV/153-2-4-32/32

experiments. Table 1 shows the technical analysis of the ore of Chiatara, table 2 shows the reduction results according to layers. It can be concluded from table 2 that the increase of the linear gas speed from 0.7 to 4.2 m/min causes no noticeable variation of the reduction degree in the first layers. The reduction rate of pyrolusite, however, increases considerably with the linear acceleration of the gas current. This can be used for increasing the capacity of the apparatus (Fig 1). It may be assumed that under stationary conditions the layer extension with a constant reducing degree is numerically equal to the rate of ore advance in a movable layer. If a direct dependence of the height of a layer with a prescribed reduction degree on the burning time is assumed, the shifting rate of this layer can be determined from the relation

$$U = \frac{H}{\tau} \quad (4); U = \text{height of an immovable layer in cm, } \tau =$$
  
burning time in minutes. In order to examine these data, a device (Fig 2) was set up by which corresponding results could be obtained (5), (6). Table 3 shows results of similar experi-

Card 2/3



Reducing Burning of Pyrolusite by Means of Gases  
in a Movable Layer

SOV/153-2-4-32/32

ments with generator gas. Hence it may be concluded that the reduction degree of pyrolusite increases with an increase in the coefficient of gas supply (6) (Experiments 1-3). In order to attain a degree of 90-95% of the reduction, a small excess of reducing gas is necessary as compared with the stoichiometrical one. It can be maintained that the reduction period with this method takes only  $1/3$  to  $1/4$  of the time used in a hearth furnace with solid fuel as reducing substance. Intensification of the usual process and establishment of favorable conditions for its mechanization and automation are rendered possible by the method suggested. L. S. Buloshnikov and M. I. Yakovleva cooperated in the experiments. There are 2 figures, 3 tables, and 7 Soviet references.

ASSOCIATION: Permskiy gosudarstvennyy universitet; Kafedra tekhnologii neorganicheskikh veshchestv (Perm' State University; Chair of Technology of Inorganic Substances)

SUBMITTED: March 25, 1958

Card 3/3

LOZHKIN, A.F.; PECHKOVSKIY, V.V.; SUBOCHEVA, N.L.

Effect of additives of some potassium compounds on the reduction  
process of barites. Uch. zap. Perm. gos. un. 17 no.1:55-60 '60.  
(MIRA 14:11)

(Barite)

(Potassium compounds)

LOZHKIN, A.F.; SYCHEVA, T.V.; SUMENKOV, V.G.

Reducing firing of natural pyrolusite in a tubular revolving furnace. Uch. zap. Perm. gos. un. 17 no.1:97-102 '60.

(MIRA 14:11)

(Pyrolusite)

LOZHKIN, A.F.; PECHKOVSKIY, V.V.; SUBOCHEVA, N.L.

Formation of acid-soluble barium compounds in the reduction  
roasting of barite. Izv. vys. ucheb. zav.; khim. i khim.  
tekh. 4 no. 2:242-246 '61. (MIRA 14:5)

1. Permskiy gosudarstvennyy universitet im. A.M. Gor'kogo.  
Kafedra tekhnologii neorganicheskikh veshchestv.  
(Barium salts) (Barite)

LOZHKIN, A.F.; PECHKOVSKIY, V.V.; SUBOCHEVA, N.L.

Reduction firing of granulate barite concentrates. *Izv.vys. ucheb.zav; khim.i khim.tekh.* 4 no.5:832-836 '61. (MIRA 14:11)

1. Permskiy gosudarstvennyy universitet, kafedra tekhnologii neorganicheskikh veshchestv.  
(Barite)

LOZINKIN, A. I., Doctor of Tech. Sci. of the Central Boiler Turbine Inst.

"With the Increased Importance of Gas as a Power Fuel It was Becoming Possible to Construct Heat and Electric Power-Stations with Combined Steam/Gas Installations and That by Using the Steam/Gas Cycle the Amount of Electricity Generated in Connection with Heat Supply Could be Increased by 30 - 50%."

All-Union Conference on the Future Development of District Heating in the USSR, 11-13 July 1958, Moscow.

(Teploenergetika, 1958, No. 11, pp. 90-92)

1ST AND 2ND ORDERS      PROCESSES AND PROPERTIES INDEX

4

• The mechanism of boiling of mercury in the cells of a mercury-vapor generator. A. N. Loshkin and P. I. Krod. *J. Tech. Phys. (U. S. S. R.)* 8, 1872-81 (1938). Owing to differences in the surface tensions of water and Hg with respect to the material of the conig. vessel, the formation of bubbles in boiling Hg leads to a sharp sepn. of the gaseous and liquid phases, of the liquid from the vessel walls, and hence to a marked lowering of the heat cond. from the latter to the liquid. Attempts to obtain wall-wetting effects by addn. of K-amalgam were not practicable; better results were obtained by the introduction of spiral columns from which the Hg-vapor bubbles are thrown out; this causes better circulation and conduction. P. H. R.

A 18-51A METALLURGICAL LITERATURE CLASSIFICATION

E-2

1ST AND 2ND ORDERS      1ST AND 2ND ORDERS

1ST AND 2ND ORDERS      1ST AND 2ND ORDERS

157 AND 2ND ORDER      157 AND 4TH ORDER

PROCESSING AND PROPERTIES INDEX

*u*

**Identification of heat exchange between walls and boiling mercury.** A. N. Loshkin and I. G. Israelit. *J. Tech. Phys.* (U. S. S. R.) 9, 2174-84(1930); cf. C. A. 33, 7209.

The heat transfer between mercury boiling in an iron tube, and the tube is impeded by the Hg vapor sepg. the liquid Hg from the walls. The vapor layer can be broken either by a violent stirring of Hg or by addn. of 0.02-0.05% of Na or K to it.

J. J. Bikerman

COMMON ELEMENTS

COMMON VARIANTS INDEX

OPEN

MATERIALS NUMBER

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

REPORT NUMBER

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

REPORT NUMBER

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

REPORT NUMBER



LOZHKIN, A. N.

"Binary Installations," Moscow, 1946

LOZHKIN, A. N.

Binary vapor installationsl working process and construction of the equipment.  
Moskva, Gos. nauch.-tekhn, izd-vo mashi-nostroit. lit-ry, 1946. 282 p.  
(49-22359)

TJ780.L6

LOZHKIN, A. N.

Heat transformers. Moskva, Gos. nauch.-tekhn. izd-vo mashinostroit. lit-ry, 1948.  
198 p. (49-29749).  
TJ266.L6

CTY

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

1ST AND 3TH ORDERS

F

M

4154. THERMODYNAMIC BASES OF COMBINED STEAM-GAS CYCLE OF CONSTANT COMBUSTION PRESSURE. Loshkin, A.W. and Gel'tman, A.E. (Kotloturbostroenie (Boiler and Turbine Manuf.), Nov.-Dec. 1948, 11-16). Theoretically investigates the above. Shows effectiveness of combining the gaseous and water-vapour phases in a single cycle in a power installation. Efficiency and economy of operation of different types of such installations are compared. (L). B.L.R.

COMMON ELEMENTS

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ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

FROM ROMIOW

1ST AND 2ND ORDERS

1ST AND 3TH ORDERS

GROUPS

LETTERS

GROUPS

LETTERS

KORNEYEV, M.I., kand.tekhn.nauk; SAZONOV, N.I., kand.tekhn.nauk;  
~~LOZHKIN, A.N., doktor tekhn.nauk, red.; GONCHAROV, N.G.,~~  
tekhn.red.

[Steam-gas power plants and prospects for their adoption  
into Soviet power engineering] Parogazovye energoustanovki  
i perspektivy ikh vnedrenia v energetiku SSSR. Pod red. A.N.  
Lozhkina. Moskva, Gos.nauchno-tekhn.komitet Soveta Ministrov  
SSSR, 1959. 45 p. (MIRA 12:12)  
(Electric power plants)

LOZHKIN, A.N., doktor tekhn.nauk, prof.; ZELENNIN, V.M., kand.tekhn.nauk

Using nonjustable steam extraction in small and medium-sized  
turbines for district heating purposes. Energomashinostroenie  
6 no.5:14-17 My '60. (MIRA 13:9)  
(Steam turbines) (Heating from central stations)

ANDRYUSHCHENKO, Anatoliy Ivanovich; LAPSHOV, Vitaliy Nikolayevich;  
LOZHKIN, A.N., prof., doktor tekhn. nauk, retsenzent;  
OL'KHOVSKIY, G.G., red.

[Steam-gas systems of electric power plants; thermodynamic and technical economic analysis of operating cycles and thermal networks] Parogazovye ustanovki elektrostantsii; termodinamicheskii i tekhniko-ekonomicheskii analizy tsiklov i teplovykh skhem. Moskva, Energiia, 1965. 246 p.  
(MIRA 18:3)

L 07349-67

ACC NRI: AP6012164

(A)

SOURCE CODE: UR/0413/66/000/007/0088/0088

AUTHORS: Lozhkin, A. N.; Petrichenko, R. M.

57  
B

ORG: none

TITLE: An assembly for utilizing the exhaust heat of an internal combustion engine.  
Class 46, No. 180433

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 88

TOPIC TAGS: heat transfer in rarefied gas, aerodynamic heat transfer, heat exchanger,  
heat energy conversion, heat effect

ABSTRACT: This Author Certificate presents an assembly for utilizing the exhaust heat of an internal combustion engine. The assembly contains a steam generator placed in the stream of exhaust gases and in the water cooling circuit of the engine, and an ejector absorbing the gases from the engine through the steam generator by using the steam produced in the generator. To increase the power and improve the economic efficiency of the engine, a heat pump is placed in the stream of the exhaust gases between the steam generator and the ejector. It converts the heat energy of the gas into pressure energy for increasing the compression behind the ejector and for lowering the pressure in the exhaust pipe of the engine. To decrease the size of

Card 1/2

UDC: 621.43.068.1



L 07349-67

ACC NR: AP6012164

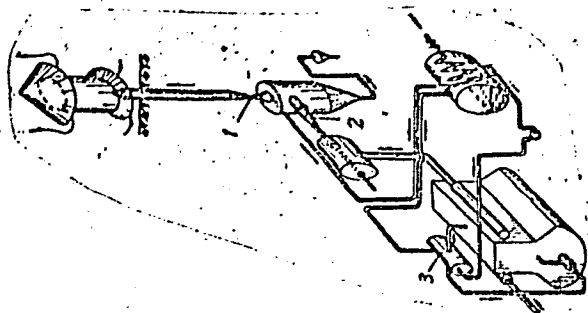


Fig. 1. 1 - ejector;  
2 - heat pump;  
3 - separator

the assembly, the steam generator may be made in the form of a separator with a throttle. Orig. art. has: 1 figure.

SUB CODE: 13/      SUBM DATE: 28Dec64

Card 2/2 afs

ACC NR: AP7002599

(A, V)

SOURCE CODE: UR/0413/66/000/023/0107/0108

INVENTORS: Lozhkin, A. N.; Petrichenko, R. M.

ORG: none

TITLE: An assembly for supercharging a diesel engine. Class 46, No. 189248

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 107-108

TOPIC TAGS: diesel engine, supercharged engine, supercharger, turbine

ABSTRACT: This Author Certificate presents an assembly for supercharging a diesel engine. The assembly contains a turbine keyed to the exhaust collector for driving an air compressor which feeds air to the engine cylinders (see Fig. 1). To increase the operating economy, a vapor separator is installed in the engine cooling system converted to provide an open high-temperature cooling. This separator feeds the vapor to the exhaust collector so as to produce a vapor-gas mixture feeding the turbine. A reducer may be placed between the turbine and the engine. This reducer has a variable transmission ratio and changes the turbine rpm according to the load on the engine. The assembly may be provided with a regulator for optimal operation. This regulator changes the transmission ratio of the reducer according to the fuel and power consumption.

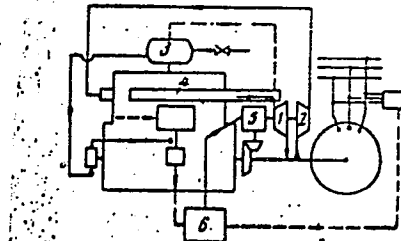
Card 1/2

UDC: 621.43.052

0230 371

ACC NR: AP7002599

Fig. 1. 1 - turbine; 2 - compressor;  
3 - vapor separator; 4 - exhaust  
collector; 5 - reducer; 6 - optimal  
operation regulator



Orig. art. has: 1 figure.

SUB CODE: 21/ SUBM DATE: 09Sep65

Card 2/2

LOZHKIN, A.V.

History of the development of relief and the age of alluvial  
sediments in the Promeshutochny Creek basin (Indigirka River  
system.) Trudy SVKNII no.3:37-52 '63. (MIRA 17:11)