USSR/Physical Chemistry - Liquids and Amorphous Bodies. Gases B-6

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3647

Author : Osadchiy A.P.
Inst : Moscow Oblast Pedagogical Institute
Title : Dependence of Trans-Stokes' Absorption of Ultrasound in Liquids on "Molecular" Volumes of Liquid Particles.

Orig Pub : Sb.: Primeneniye ul'traakustiki k issled. veshchestva. No 3, M., MOPI, 1956, 105-116

Abstract : Utilizing the theory of differences and assuming that the particles of the liquid can take part in the propagation of the sound impulse either as a single entity or as separate portions of molecules, the author has derived an expression for the coefficient of sound absorption. On the basis of a comparison of the expression thus derived with the results of observations conclusions are drawn concerning the mechanism of sound propagation in different liquids.

Card 1/1

OSADCHIY A.P.

105-8-12/20

AUTHOR OSADCHIY A.P.,Eng.

TITLE An Impulse Method for Determining the Distance to the Fault Point in Pupinized Cables.
(Impul'snyy metod opredeleniya rasstoyaniya do mesta povrezhdeniya v **pupinizirovannykh** kabelyakh - Russian)

PERIODICAL Elektrichestvo, 1957, # Nr 8, pp 59 - 60 (U.S.S.R.)

ABSTRACT Since 1957 a new universal equipment of type IKL-5, an impulse device for measurings in overhead lines as well as in cables, is produced. In recent years tests were made to use the present impulse devices for measurements in pupinized cables. The method of a narrow monopolar impuse employed on that occasion proved to be a failure. The fading oscillations which are reflected by the fault point return to the point by which the impulse was sent out. Until the arrival of this reflected impuse the oscillations of the first link of the chain may be seen on the screen. These were earlier mistaken for the reflection of the Pupin coils. These oscillations render the employment of theimpulse method difficult. They can be considerably reduced, however, if two narrow monopolar impuses are sent out to the cable. The parameters of the second impuse are selected so that they are compensated in the first link ofthe chain after one semiperiod since the beginning of oscillation. For that a second impuse of the same polarity as the first one is selected, but with a shift in time in comparation to the first impuse, and equal to the duration of the first semiperiod of oscillations which are caused in the first link.

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105-8-12/20

An Impulse Method for Determining the Distance to the Fault Point in Pupinized Cables.

The amplitude of the second impuse is chosen smaller than that of the first one.The durations of impulse are selected equal and smaller than the half of the oscillation period.The character of the fault is determined according to the sign of the first oscillation of the reflected impuse.The experiments confirmed the efficiency of the method,especially in the beginnings of cables.The use of the IKL-5 type equipment is best suitable.
(2 illustrations and 2 Slavic references).

ASSOCIATION Central Scientific Electrotechnical Research Laboratory of the Ministry of Electric Power Plants (Tsentral'naya nauchno-issledovatel'skaya elektrotekhnicheskaya laboratoriya MES)

PRESENTED BY
SUBMITTED 15.5.1957
AVAILABLE Library of Congress.
Card 2/2

24.1800
6.8000 (3201, 1099, 1162)

83872
S/112/59/000/016/052/059
A052/A002

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, No. 16, p. 24r, # 35355

AUTHOR: Osadchiy, A. P.

TITLE: On the Dependence of the Absorption of Ultrasound on Its Intensity

PERIODICAL: V sb.: Primeneniye ul'traakust. k issled. veshchestva, No. 7, Moscow, 1958, pp. 101-104

TEXT: The recently investigated effect of the dependence of ultrasound absorption in liquid on the amplitude of acoustic pressure is explained by the energy dissipation of the wave due to periodic deformations of the structural particles of liquid under the action of excess acoustic pressure. When the amplitude of shift of the structural particles becomes greater than the size of the particles, the thickness of the liquid layer shifting during a quarter of a period becomes greater than the size of one structural particle. This is equivalent to a dimension increase of the structural particles, i. e. an increase of the mass of a particle and of the number of its outside electrons,

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A052/A002

On the Dependency of the Absorption of Ultrasound on Its Intensity

with the result that the general viscosity increases. A calculation has been carried out. The data obtained correspond to a certain extent to the experimental data of other studies, except in the case of absorption in water. The anomality of absorption of ultrasound of high intensity in water is explained by the association of molecules in molecular complexes which can be considered as single structural particles.

M. G. S

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

OSADCHIY, A.P., inzh.

Propagation of pulses in electric transmission lines. Trudy VNIIE no.8:5-22 '59. (MIRA 13:9)
(Electric lines--Testing) (Electric measurements)

BAKINOVSKIY, V.L., kand.tekhn.nauk; LIPINSKIY, G.V., inzh.; OSADCHIY, A.P.; inzh.; FRIDMAN, Ye.Ya., inzh.

IKL-5 universal pulse device for measuring the distance to damages in overhead and cable lines for electric transmission and communications. Trudy VNIIE no.8:35-43 '59. (MIRA 13:9)
(Electric lines--Testing)

BAKINOVSKIY, V.L., kand.tekhn.nauk; OSADCHIY, A.P., inzh.

PIK-2 pulse device for ultrasonic measurements. Trudy VNIIE no.8:62-76 '59. (MIRA 13:9)
(Pulse techniques (Electronics))
(Ultrasonic waves--Measurement)

8 (2)

AUTHOR: Osadchiy, A. P., Engineer

SOV/105-59-11-14/32

TITLE: Pulse Measurements in Electric Transmission Lines

PERIODICAL: Elektrichestvo, 1959, Nr 11, pp 65 - 70 (USSR)

ABSTRACT: In the introduction the instrument of type IKL-5 for detecting the source of trouble in electric lines which is produced in series is mentioned and it is found that the pulse measurement for determining the source of trouble has been little dealt with in publications. The purpose of the present paper is to investigate the phenomena occurring on pulse measurements on multi-conductor systems by deciphering the oscillograms. In the first part the pulse propagation in the lines is dealt with and it is said that the pulse waves propagating in symmetrical lines can be represented as the sum of two wave groups. 1) phase-earth-waves with the same sign and the same amplitude. 2) Phase-phase-wave with different signs in the individual conductors. These waves are explained by means of figure 1 in which E_o represents the phase-earth-waves and E_1, E_2, and E_3 the phase-phase-waves. If the amplitude of the

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transmitter test pulse is 100% E_1 = 54% E_2 = E_3 = 27%, E_0 = 46% holds for the waves. The groups propagate superposingly, they are partly reflected at heterogeneous places, the reflected parts in turn forming phase-phase- and phase-earth-components. The wave deformation is determined by the different attenuation of the frequency components of the wave and by the different propagation velocities of the waves. The measurements were made only in the phase-phase-components since they propagate with considerably higher velocity and are subject to much lower attenuation. Tables 1 and 2 show the results of the reflection calculations in defects of different types of conductors and of the passing components. In the second part the experimental work is described. The pulses with a duration of 10 microseconds and an amplitude of 5 kv were transmitted into the conductors by means of a special apparatus and pulses of different length were transmitted into the conductors by means of the series instrument of type IKL-5. The pulses were measured by photographing the oscillograms; figures 3, 4, and 5 show such photos and the types of the defects. Results: 1) A ground-leakage in any phase is noticed in every phase, the most strongly in the faulty phase. 2) An

interphase fault can be detected only by measuring the short-circuited phases. 3) In ground leakages in the center of the measured phase has the reflected wave 29 - 54% of the transmitted one, according to the type of the ground leakage. In the final part the measurements are described for complicated parts of the mains. First the measurements of the mains shown in figures 6 and 7 are dealt with and an oscillogram is shown in figure 8a which belongs to the mains represented in figure 6. The results are summarized as follows: 1) reflex pulses occur in the oscillograms of untroubled lines which cannot be eliminated. A pulse originating directly from a defect is superimposed on the existing ones. 2) The measurements at one end do not definitely determine the place of the defect. 3) It is possible that in the pulse characteristics pulses occur which are the sum of several reflections at different defects. In complicated cases the error can be found by a comparison of the oscillograms of the troubled and the untroubled lines. There are 8 figures, 2 tables, and 2 Soviet references.

Pulse Measurements in Electric Transmission Lines SOV/105-59-11-14/32

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut elektro-energetiki (All-Union Scientific Research Institute of Electric Power Engineering)

SUBMITTED: February 14, 1959

Card 4/4

30502
S/194/61/000/008/051/092
D201/D304

24.1800 (1063, 1144, 1482)

AUTHOR: Osadchiy, A.P.

TITLE: The mechanism of Newtonian viscosity and its effect on ultrasound absorption in fluids

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 8, 1961, 6, abstract 8 E50 (Uch. zap. Mosk. obl. ped. in-ta, 1960, 92, 223-241)

TEXT: The mechanism is analyzed of Newtonian viscosity (NV) in fluids. It is assumed that the NV mechanism is common and the only mechanism in the liquid state of the matter fully responsible for the hyper-Stokes absorption of ultrasound in liquids. The NV can unite various processes differing in their nature which occur in the liquid and these processes lead to the hyper-Stokes dissipation of energy of the ultrasonic wave. If with respect to the ultrasonic wave the liquid is assumed to be a structural medium consisting of structural particles, then the NV would show due to the

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The mechanism of Newtonian...

periodic deformation of the above structural particles. In the calculation formula produced for NV the more important of the molecular constants of the liquid are related to the parameters of the ultrasonic field. The analysis of this formula is made for various concrete cases. 3 figures. 5 references. [Abstracter's note: Complete translation]

Card 2/2

OSADCHIY,A. P., Cand Tech Sci -- "Study of the possibility of ~~realizing~~ automatic measurement to the ~~place~~ of damage, (LEP) at the moment of damage." Mos, 1961. (Mos of Higher and Sec Spec Ed RSFSR. Mos Order of Lenin Power Eng Inst)

(KL, 8-61, 247)

NOZDREV, V.F.; OSADCHIY, A.P.; RUBTSOV, A.S.

Investigation of ultrasonic velocity in water along the saturation line, including the critical region. Akust. zhur. 7 no.3:383-384 '61. (MIRA 14:9)

1. Stalingradskiy sel'skokhozyaystvennyy institut i Moskovskiy oblastnoy pedagogicheskiy institut imeni N.K. Krupskoy.
(Ultrasonic waves--Speed)
(Underwater acoustics)

ANOKHIN, V.N., inzh.; LANYUK, S.Ye., inzh.; OSADCHIY, A.P., kand. tekhn. nauk

Automatic two-beam electronic oscillograph with multiple delayed scanning. Trudy VNIIE no.18:122-127 '64.

(MIRA 18:6)

ACC NR: AT6033697 SOURCE CODE: UR/3231/66/000/002/0183/0195

AUTHOR: Ozaichiy, A. P.; Daragan, S. K.

ORG: none

TITLE: KOD apparatus for multichannel digital recording of seismic signals

SOURCE: AN SSSR. Institut fiziki Zemli. Vychislitel'naya seysmologiya, no. 2, 1966. Mashinnaya interpretatsiya seysmicheskikh voln (machine interpretation of seismic waves), 183-195

TOPIC TAGS: digital seismic signal recorder, digital analog converter, seismologic instrument, seismologic station, seismograph, signal recording

ABSTRACT: The KOD digital recorder, which incorporates a device for on-the-spot analog-to-digital conversion and multichannel recording of seismic observations on magnetic tape, was developed at the Institute of Physics of the Earth, AS USSR. Three to five KOD sets, each installed at a separate seismic station, can provide round-the-clock recordings for computerized analysis at the main station. The set consists of the following principal components (Fig. 1): seismic signal pickups (1); amplifiers (2) for raising the signal level high enough

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ACC NR: AT6033697

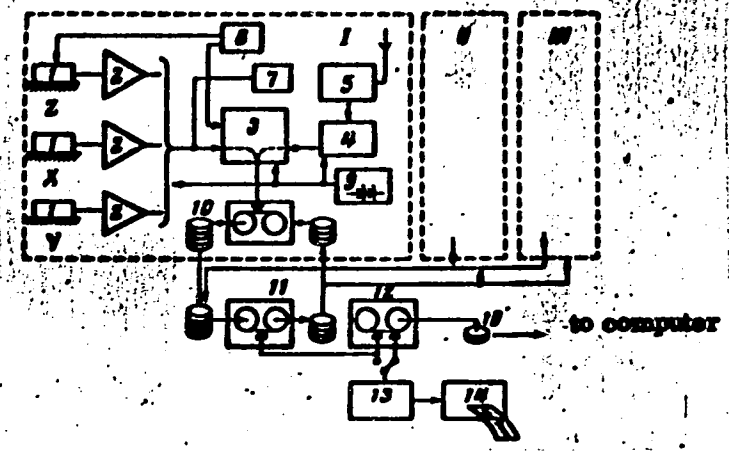

Fig. 1. Simplified block diagram of registration

1 - Pickup; 2 - amplifier; 3 - multichannel analog-to-digital converter; 4 - time service; 5 - radio receiver; 6 - magnetic recorder; 7 - visual recorder; 8 - control unit; 9 - power supply unit; 10 - recorded tape; 11 - magnetic reproducer; 12 - magnetic transcriber; 13 - multichannel digital-to-analog converter; 14 - loop oscillograph (I - III ---- station numbers).

ACC NR: AT6033697

for conversion to a binary code -- the number of amplifier channels corresponds to the number of X, Y, and Z components of the recorded signals; multichannel analog-to-digital converter (3); time recorder (4) for subsequent integrated analysis of material from a number of stations; radio receiver (5) for reception of the exact-time signals; magnetic recorder (6); visual-monitoring recorder (7); control unit (8) power source (storage battery) (9). The recorded tape (10) is transmitted to the main station where it is selectively transcribed from a magnetic reproducing unit (11) onto another magnetic recorder (12), while at the same time providing a visual trace, decoded by a multichannel digital-to-analog converter (13) and recorded by an oscillograph (14). Signals within the frequency range of 0.03-5 cps (33-0.2 sec) are recorded. This set, designed for continuous round-the-clock operation, requires the following daily servicing operations: 1) replacement of magnetic-recorder tape, 3 times daily; 2) adjustment of quartz clock, 2 times daily, according to exact-time signals transmitted by radio; 3) checking the performance of the data converter by visual monitoring of oscillograph screen; 4) calibration of amplifier and control units. All measurement results are recorded on the station log. Orig. art. has: 5 figures, and 2 tables.

SUB CODE: ~~17~~ 08, 09/ SUBM DATE: none/ ORIG REF: 002/ ATD PRESS: 5106

Card 3/3

SOLYANKIN, Ye.V.; OSADCHIY, A.S.

Heat balance in the Black Sea. Okeanologiia 2 no.4:602-613 '62.
(MIRA 15:7)

1. Institut okeanologii AN SSSR.
(Black Sea--Temperature)

SOLEANKIN, E.V. [Sol'yankin, Ye.V.]; OSADCII, A.S. [Osadchiy, A.S.]

The thermal circuit in the Black Sea. Analele geol geogr 17 no.2: 97-110 Ap-Je '63.

OSADCHIY, A.T.; POLISHCHUK, V.A.

The use of short concrete piles with a pedestal formed by blasting. Prom. stroi. 40 no.9:38-40 '62. (MIRA 15:11)
(Piling (Civil engineering))
(Foundations)

OSADCHIY, D.P., dots; TIRASPOL'SKAYA, M.M., kand.med.nauk

So-called inflammatory tumors originating in the kidney. Urologiia, 23 no.1:59-62 Ja-F '58. (MIRA 11:3)

1. Iz kafedry khirurgii (zav.-prof. G.M.Gurevich) Khar'kovskogo stomatologicheskogo instituta na baze 11-y gorodskoy bol'nitsy Khar'kova.
(KIDNEYS, neoplasms
inflammatory tumors)

17(SOV/177-58-7-24/28

AUTHOR: Osadchiy, D.R., Guards Captain of the Medical Corps

TITLE: The Treatment of Deep Forms of Pyodermititides

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 7, pp 88-90 (USSR)

ABSTRACT: The author bases this treatise on his own investigations and those of F.N. Kashkin, Yu.F. Korolev, V.Ya. Shlapoberskiy, V.T. Gusev, P.V. Khizhnyakov, K.K. Aglintsev, M.N. D'yachenko and S.T. Pavlov. He observed 128 patients who were treated with the RUM-4 type apparatus and came to the following conclusions: 1) X-ray therapy with the x-ray diagnostic apparatus is very effective in the treatment of deep injuries of the skin caused by staphylococci. 2) X-rays take a marked healing effect in all phases

Card 1/2

The Treatment of Deep Forms of Pyodermititides

of the inflammatory process, but they are most efficacious in the early periods. 3) In roentgenotherapy of all forms of deep staphyloderma a careful exterior disinfection is necessary and in case of endogenous causes - a general pathogenetic therapy. There is 1 table.

OSADCHIY, F.

Organizing repairs of fuel-feed and ignition equipment. Avt. transp. 36 no.3:15 Mr '58. (MIRA 11:3)
(Automobiles--Maintenance and repair)

BUDNIKOV, A., inzh.; OSADCHIY, F., inzh.; POTOKIN, A.; DMITRIYEV, A., inzh.; BRUZH, R.; YELIZAR'YEV, B.

Exchange of experience. Avt.transp. 42 no.2:47-50 F '64.
(MIRA 17:3)

OSADCHIY, F., inzh.; GOLOSOV, V.; NOVIKOV, K.; MITIN, V.; RYBCHENKO, G.; KUZNETSOV, V.; TERENT'YEV, M., inzh.; MATKUZHIN, Zh.

Exchange of experience. Avt. transp. 42 no.11:47-51 N '64. (MIRA 17:12)

TEMENT'YEV, V.; MAYER, P.; FAYZRAKHMANOV, M.; KALOSHIN, S.; RADCHENKO, L.; AKHMETOV, M.; MUSIN, A.Ch., kandidat tekhnicheskikh nauk, otvetstvennyy redaktor; OSADCHIY, F.Ya.; POPOKINA, Z.P., tekhnicheskiy redaktor

[Experience in oil well drilling with pneumatic percussion rotary equipment] Opyt bureniia skvazhin pnevmaticheskim udarno-vrashchatel'nym sposobom. Alma-Ata, Izd-vo Akademii nauk Kazakhskoi SSR, 1956. 79 p. (MLRA 9:7)

(Oil well drilling)

OSADCHIY, G.V., inzh.

Effect produced by a wheel pair with worn-out treads. Vest.TSNII MPS 19 no.6:32-34 '60. (MIRA 13:9)

1. Trest Donbasstroy, g. Stalino.
(Car wheels)

OSADCHIY, G.V.; BYCHKOVSKIY, Z.M.

Speedy construction of a storm drain. Transp. stroi. 15 no.3:10-12 Mr '65. (MIRA 18:11)

1. Glavnyy inzh. tresta Donbasstransstroy (for Osadchiy).
2. Starshiy inzh. tresta Donbasstransstroy (for Bychkovskiy).

KRATYNSKIY, V., OSADCHIY I., LYBEDEV V.

Irrigation

Mechanization of work involved in the transition to anew irrigation system. MTS 12 No. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1952, Uncl.

. :HIY, I.F.

Reinforced concrete products plant. Put' i put.khoz. no.
Ag '57. (MIRA)
(Reinforced concrete) (Railroads--Equipment and supplies)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00123

OSADCHIY, I.F.

Slag concrete blocks. Put' i dut. khoz. no. 7:37-38 Jl '58.
(MIRA 11:7)

1. Zamestitel' nachal'nika distantsii, g. Gomel.
(Concrete blocks)

OSADCHIY, I.I., inzhener.

Novosibirsk machine-excavator station conducting soil improvement operations in the Baraba steppe. Gidr. i mel. 6 no.7:18-22 Jl '54. (MLRA 7:7)
(Baraba steppe--Soil conservation) (Soil conservation--Baraba steppe)

OSADCHIY, I.I., inzhener.

Practice of efficiency promoters of the Stavropol Machine-Excavator Station. Gidr. i mel. 8 no.7:37-40 Jl '56. (MLRA 9:9)
(Stavropol--Excavating machinery)

OSADCHIY, K.M.

Friendship forever. Mekh. sil'. hosp. [8] no.12:8-9 D '57.
(MIRA 10:12)

1. Sekretar Pereyaslav-Khmel'nits'kogo raykomu Komunistichnoi partii Ukraini.
(Agriculture)

OSADCHIY, L.I.

Effect of carbondioxide and novocaine on interceptors of the ileocecal region. Biul.eksp.biol. i med. 41 no.4:10-14 Ap '56. (MLRA 9:8)

1. Iz laboratorii fiziologii retseptorov (zav. deystvitel'nyy chlen AMN SSSR prof. V.N.Chernigovskiy) i laboratorii patologicheskoy fiziologii (zav. prof. V.S.Galkin) Instituta fiziologii imeni I.P. Pavlova (dir. akademik K.M.Bykov) AN SSSR, Leningrad. Predstavlena deystvitel'nym chlenom AMN SSSR V.N.Chernigovskim.

(BLOOD PRESSURE, physiology,
eff. of ileocecal stimulation with carbon dioxide & procaine (Rus))
(ILEUM, physiology,
eff. of carbon dioxide & procaine stimulation of ileocecal region on blood pressure (Rus))
(CECUM, physiology,
same)
(PROCAINE, effects,
on ileocecal region, blood pressure responses (Rus))
(CARBON DIOXIDE, effects,
same)

OSADCHIY, L. I. Cand Med Sci -- (diss) "Participation of the [illegible] component in the mechanism of effects of intravascular introduction of sodium chloride." Len, 19[illegible]. 1 pp (Acad Sci USSR. Inst of Physiology im I. P. Pavlov), 120 copies (KL, 27-58, 111)

OSADCHIY, L.I.

Changes in reflex motor reactions to intravenous and intra-arterial administration of a chemical irritant [with summary in English]. Biul.eksp.biol. i med. 45 no.2:33-37 F' 58 (MIRA 11:5)

1. Iz laboratorii patologicheskoy fiziologii (zav. - prof. V.S. Galkin [deceased]) Instituta fiziologii imeni I.P. Pavlova (dir. - akademik K.M. Bykov) Akademii nauk SSSR, Leningrad.
(MOVEMENT, physiology,
eff. of intra-arterial & intra-venous hypertonic solutions on motor reflexes (Rus))
(HYPERTONIC SOLUTIONS, effects,
on motor reflexes, intravenous & intra-arterial admin. (Rus))

OSADCHIY, L.I.

Role of the interoceptive component in the mechanims of action of intravascular hypertonic solution on the knee reflex [with summary in English]. Biul.eksp.biol. i med. 46 no.7:35-40 Je '58 (MIRA 11:7)

1. Iz laboratorii patologicheskoy fiziologii (zav. - prof. V.S. Galkin [deceased]) Instituta fiziologii imeni I.P. Pavlova (dir. - akademik K.M. Bykov) AN SSSR, Leningrad. Predstavlena akademikom K.M. Bykovym.

(HYPERTONIC SOLUTIONS, effects,
on knee jerk, interoceptive factor in intra-vasc. inject (Rus))
(REFLEXES,
knee jerk, eff. of hypertonic solution, interoceptive factor in intrav-vasc. admin. (Rus))

GANELINA, I.Ye.; ZIMOVAYA, N.G.; IL'INSKIY, O.B.; LEBEDEVA, V.A.; MARTYNYUK, V.K.; MEHKULOVA, O.S.; MUSYASHCHIKOVA, S.S.; MYAGKAYA, I.P.; OSADCHIY, L.I.; POPOVA, T.V.; SEREBRENNIKOV, I.S.; TYUTRYUMOVA, Z.I.; CHERNICHENKO, V.A.; YAROSHEVSKIY, A.Ya.

Interoceptive component in the development of certain pathological states. Trudy Inst.fiziol. 8:240-253 '59. (MIRA 13:5)

1. Laboratoriya patologicheskoy fiziologii (zaveduyushchiy - V.S. Galkin [deceased]) Instituta fiziologii im. I.P. Pavlova AN SSSR.
(SENSES AND SENSATION) (PATHOLOGY)

ACCESSION NR: AP4017133 S/0239/64/050/002/0225/0229

AUTHOR: Korniushkin, Yu. D. (Kornyushkin, Yu. D.); Osadchiy, L. I. (Osadchiy, L. I.)

TITLE: A mechanotron intravascular pressure data unit

SOURCE: Fiziologicheskiy zhurnal SSSR, v. 50, no. 2, 1964, 225-229

TOPIC TAGS: intravascular pressure data unit, arterial pressure direct reading, mechanotron transducer, membrane manometer, MPO-2 oscillograph

ABSTRACT: A mechanotron intravascular pressure data unit constructed by the authors records arterial and venous pressures directly on a loop oscillograph without intermediate amplifiers. The mechanotron is an electron transducer and is connected to a membrane. The membrane is mounted in a capsule forming a membrane manometer which reacts directly to intravascular pressure transmitted through a polyethylene catheter. The membrane converts the pressure into small pressure waves and the mechanotron converts them into electric signals of sufficient power to be directly recorded by the vibrometers of a

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ACCESSION NR: AP4017133

MPO-2 oscillograph. Visual observations are made on the screen of a VEKS-1 vectoelectrocardioscope. The mechanotron looks like an ordinary electron tube and is a specially constructed double triode with movable anodes and grid and a fixed cathode. The two anodes are used to increase sensitivity and current is measured in a diagonal bridge circuit. Basically the data unit is a highly sensitive electromanometer with very reliable direct readings. Orig. art. has: 4 figures.

ASSOCIATION: Laboratoriya elektroniki i poluprovodnikov Leningradskogo instituta tochnoy mekhaniki i optiki i laboratoriya fiziologii krovoobrashcheniya instituta fiziologii im. I. P. Pavlova AN SSSR, Leningrad (Laboratory of Electronics and Semiconductors of the Leningrad Institute of Precision Mechanics and Optics and the Laboratory of Blood Circulatory Physiology of the Physiology Institute, AN SSSR, Leningrad)

SUBMITTED: 17Apr63 DATE ACQ: 18Mar64 ENCL: 00

SUB CODE: LS NR REF SOV: 001 OTHER: 005

Card 2/2

KORNYUSHKIN, Yu.P.; OSADCHIY, L.I.

"Mechanotron" recorder of intravascular pressure. [illegible]
5[illegible] no.2:225-229 F '64.

1. Laboratoriya elektroniki i poluprovodnikov Leningradskogo Instituta tochnoy mekhaniki i optiki i Laboratoriya fiz[illegible] apparatsheniya Instituta fiziologii imeni I.P. Pavlova [illegible].

OSADCHIY, L.I.

Analysis of some effects of intracarotid introduction of chemical irritants. Fiziol. zhur. 50 no.3:293-300 Mr '64.

(MIRA 18:1)

1. Laboratoriya fiziologii krovoobrashcheniya i dykhaniya Instituta fiziologii imeni I.P. Pavlova AN SSSR, Leningrad.

L 24671-65
ACCESSION NR: AP5004681 S/0239/64/050/009/1136/1143

AUTHOR: Osadchiy, L. I.

TITLE: Analysis of certain effects of intravenous or intracardiac administration of chemical agents

SOURCE: Fiziologicheskiy zhurnal SSSR, v. 50, no. 9, 1964, 1136-1143

TOPIC TAGS: nervous system, cardiovascular

Abstract: Changes in the knee reflex and the cortical motor response are considerable more pronounced following intravenous and intracardiac administration of a hypertonic solution of sodium chloride than when it is given in a direction toward the brain or spinal column through the common carotid artery or aorta. This suggests that these changes are determined by reflex influences from the receptors of the vascular regions with which the compound administered into the veins inevitably comes in contact before it reaches the central nervous system. This is true chiefly for the receptor fields of the heart and lungs. Determination of what nerve tracts conduct the influence from the cardiac and pulmonary receptors to the central apparatus of the knee reflex was the purpose of the research described. Experiments were performed in which vagus nerve conduction was blocked and the spinal column severed

Card 1/2

at the boundary of the thoracic and cervical levels. It was found that the principal afferent tracts which conduct reflex influences from the receptors of the ostia of the vena cava, heart, and lesser circulatory circuit and, to a certain extent, the aortic arch to the motor centers of the knee reflex pass through the vagus nerves. Spinal afferent innervation of the ostia of the vena cava, heart, and lesser circulatory circuit also participate in these reflexive influences. The direct cause of a relationship between responses of blood pressure and changes in knee reflex upon intravenous and intracardiac administrations of a hypertonic solution of sodium chloride has not been found. Variations in knee reflex upon intravenous and intracardiac administrations of sodium chloride caused by a reflex mechanism. Orig. art. has 4 figures.

ASSOCIATION: Laboratoriya fiziologii krovoobrashcheniya i dykhaniya Instituta fiziologii im. I. P. Pavlova AN SSSR, Leningrad (Laboratory of the Physiology of Blood Circulation and Respiration, Institute of [illegible])

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

of blood circulation and respiration, Institute of Physiology, AN SSSR)

SUBMITTED: 19Feb63 ENCL: 00 SUB CODE: LS

NO REF SOV: 009 OTHER: 006 JPRS

Card 2/2

OSADCHIY, L.I.; LEVATOV, V.A.; ORLOV, V.V.; VOSTRIKOV, N.A.

Simple model of a tensiometric electromanometer for recording intravascular pressure. Biul.eksp.biol.i med. 57 no.5:120-122 My '64. (MIRA 18:2)

1. Laboratoriya fiziologii krovoobrashcheniya Instituta fiziologii imeni Pavlova AN SSSR, Leningrad. Submitted June 15, 1963.

OSADCHIY, L.K.; SYRKIN, Yu.G., inzh.tekhnolog; VEKSHIN, K.D., mashinist elektrovoza, Geroy Sotsialisticheskogo Truda; ONOPRIYENKO, L.N., mashinist elektrovoza; SHAROV, M.S.; MARKOVICH, I.A., mashinist-instruktor

"Electric networks of the VL23 electric locomotive." Elek. i tepl. tiaga 5 no.6:44-45 Je '61. (MIRA 14:10)

1. Depo Dnepropetrovsk (for Syrkin). 2. Depo Barabinsk Zapadno-Sibirskoy dorogi (for Sharov).
(Electric locomotives)

VAVILOV, Dimitriy Mikhaylovich, kapitan 1 ranga zapasa; OSADCHIY, Mikhail Dmitriyevich, kapitan 1 ranga zapasa; BYKHOVSKIY, Izrail' Adol'fovich, kapitan 2 ranga zapasa; KAZANKOV, A.A., kapitan 1 ranga, red.; KONOVALOVA, Ye.K., tekhn.red.

[Practical seamanship] Morskaia praktika. Pt.2.[Ship handling] Upravlenie manevrami korablia. Moskva, Voen.izd-vo M-va obor.SSSR. 1958. 287 p. (MIRA 12:4)

(Navigation)

OSADCHIY, N.I

USSR/Cultivated Plants.-Technical Oleaceae, Sugar Plants M-7

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 1700

Author : N. I. Osadchiy
Inst : Not Given
Title : The Most Favorable Method of Irrigating Tobacco

Orig Pub : S.kh. Kirgiaii, 1956, No 5, 18-22

Abstract : Tests for studying the periods and amounts of irrigation for tobacco have been conducted during 1940-42 at the zonal station of Frunze of the Union Tobacco and Mahorka Institute. Formulas are given for determining the total amounts of water consumption of a tobacco field and also norms of watering and irrigation. Results of the study of the tobacco irrigation method in vegetative containers ahve also been noted.

Card : 1/1

Name: OSADCHIY, Nikolay Ivanovich

Dissertation: Cultivation of tobacco under conditions of the irrigated agriculture of Central Asia and Kazakhstan

Degree: Doc Agr Sci

Affiliation: Kirgiz Agr Inst

Defense Date, Place: 21 Dec 55, Council of Soil Inst imeni Dokuchayev, Acad Sci USSR

Certification Date: 5 Oct 57

Source: BMVO 23/57

USSR/Cultivated [illegible] - [illegible]. [illegible]-6

Abs Jour : [illegible] - [illegible], [illegible] 5351

Author : [illegible], N. I

Inst : Kirgiz Agricultural [illegible].

Title : [illegible] Perennial Gr[illegible].

Orig Pub : [illegible] Kirgizii, 195[illegible], [illegible]-39

Abstract : [illegible], conducted [illegible] faculty [illegible] the Kirgiz Agricultural Institute at the Frunze [illegible] Station in 1948-1[illegible] that under [illegible] irrigated agriculture [illegible] when grass was [illegible] value grass cr[illegible] harvesting [illegible] cover crop and [illegible] 60 [illegible] harvesting [illegible] thoroughly 2 [illegible] 10-15 days, [illegible] stock [illegible] following year [illegible]. -- [illegible]

Card 1/1

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R001238

BRAZHNIKOV, N.V., kand.tekhn.nauk; BONDARENKO, V.I., inzh.; OSADCHIY, N.I., inzh.; KHRIPKO, Yu.I., inzh.; CHISTOV, V.P., inzh.

Automatic-control system for scale cars. Mekh.i avtom.proizv. 14 no.10:23-26 O '60. (MIRA 13:10)
(Weighing machines) (Automatic control)

L 27885-65 EWT(d)/EED-2/EWP(1) Po-4/Pq-4/Pg-4/Pk-4 IJP(c) BB/GG/GS

ACCESSION NR: AT5003954 S/0000/64/000/000/0337/0350

35

AUTHOR: Osadchiy, N. I.; Chistov, V. P.

B+1

TITLE: Logic and computer devices of the static type in digital servomechanisms

160

SOURCE: Nauchno-tekhnicheskoye obshchestvo priborostroitel'noy promyshlennosti. Nauchno-tekhnicheskoye soveshchaniye. 3d, Moscow, 1962. Vychislitel'naya tekhnika dlya avtomatizatsii proizvodstva (Computer technology for the automation of production); trudy soveshchaniya. Moscow, Izd-vo Mashinostroyeniye, 1964, 337-350

TOPIC TAGS: pnp transistor, transistor circuit, logic circuit, digital computer element, servomechanism element, logic gate

ABSTRACT: The article describes several automatic control elements based on the use of p-n-p transistors. Advantages claimed for these elements are compactness, high reliability in a temperature range +5--60C and under supply-line fluctuations up to ± 20%, and instant readiness for operation. The authors developed a basic

...decimal binary-coded codes, decimal to binary converters,

Card 1/2

L 27885-65

ACCESSION NR: AT5003954

V code into binary code converter, and digital servomechanism system with program control. Original article has: 12 figures, 7 formulas, and 3 tables.

ASSOCIATION: None

SUBMITTED: 01Sep64 ENCL: 00 SUB CODE: DP

L 6993-66 EWP(1)/EWT(d) IJP(c) GG/BB

ACC NR: AP5026809 SOURCE CODE: UR/0286/65/000/017/0091/0092

INVENTOR: Osadchiy, N. I.; Chistov, V. P.

ORG: none

TITLE: A combination binary addition-subtraction unit. Class 42, No. 174438

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 17, 1965, 91-92

TOPIC TAGS: binary logic, logic element, computer component, arithmetic unit

ABSTRACT: This Inventor's Certificate introduces a combination binary addition-subtraction unit. In order to carry out subtraction in direct code as well as to simplify the system and make it possible to use elements of the same type, the unit contains two series-connected nonequivalence elements with additional outputs to which a two-input "OR-NOT" gate is connected for forming the borrow or carry to the most significant digit. Each of the nonequivalence elements contains an "OR-NOT" gate at the input as well as two "OR-NOT" gates which have one input connected to the output of the first "OR-NOT" gate. The other two inputs of these "OR-NOT" gates are connected respectively to the inputs of the adder-subtracter (for the first

Card 1/3 UDC: 681.142.07

L 6993-66

ACC NR: AP5026809

nonequivalence element), or to the output of the first nonequivalence element and to the source for the borrow or carry from the least significant digit (for the second nonequivalence element). The nonequivalence elements also each contain an "OR" gate at the output which is connected to the outputs from the second and third "OR-NOT" gates.

SUB CODE: DP,EC/ SUBM DATE: 22Jul64/ ORIG REF: 000/ OTH REF: 000

Card 2/3

L 6993-66
ACC NR: AP5026809

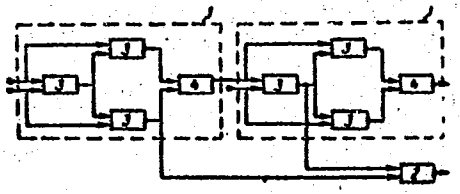


Fig. 1. 1 - nonequivalence elements; 2 - two-input "OR-NOT" gate for forming the borrow or carry; 3 - "OR-NOT" gates; 4 - "OR" gates.

Card 3/3

OSADCHIY, N.P., inzh.

Initial period in the development of long-distance power transmission. Elektrichestvo no.1:74-77 Ja '58. (MIRA 11:2)
(Electric power distribution)

OSADCHIY, Nikolay Petrovich; NIKOLAYEVA, M.I., red.

[Historical study of the development of long-distance electric power transmission systems] Istoricheskii ocherk razvitiia peredachi elektricheskoi energii na rasstoianie. Moskva, Izd-vo "Energiia," 1964. 94 p. (MIRA 17:4)

OSADCHIY, N.P., Inzh.

Problem concerning the increase [illegible] power line frequency and its optimal value. Elektrichestvo no. 11 (MCRA 7:12)

Supplying sets of building mater[illegible] according to the spe[illegible]-fication-delivery card syster[illegible]. [illegible] mat[illegible]

[illegible]. Glavnyy inzh. Upravleniya sbyta i komplektatsii Glavlenstroymaterialov (for Gradchenko). [illegible]. Nachal'nik planovo-proizvodstvennogo otdela Glavlenstroymaterialov (for Kuroptev).

OSADCHIY, S.

More about technical norms. Muk.-elev.prom. 20 no.3:10-11 Mr '54. (MLRA 7:7)

1. Kiyevskaya normativno-issledovatel'skaya stantsiya Zagotzerno.
(Labor productivity) (Grain elevators)

OSADCHIY, S.

Loading grain into railroad cars at the Kurgan procurement station. Muk.-elev.prom. 20 no.7:31 Jl '54. (MLRA 7:8)

1. Kiyevskaya normativno-issledovatel'skaya stantsiya Zagotzerno.
(Grain--Transportation)

OSADCHIY, S.

Cleaning seeds of flax and other crops. Muk.-elev.prom. 20 no.10: 25 O '54. (MLRA 7:12)

1. Kiyevskaya normativno-issledovatel'skaya stantsiya Zagotzerno. (Flaxseed) (Seeds--Cleaning)

OSADCHIY,S.

Conveyer with a power shovel. Muk.-elev.prom. 21 no.4:24 Ap '55. (MLRA 8:7)

1. Kiyevskaya normativno-issledovatel'skaya stantsiya Zagotzerno.
(Grain--Handling machinery)

OSADCHIY, S.

Simplified power shovel. Muk.-elev.prom.21 no.6:23 Je '55.
(MLRA 8:10)

1. Kiyevskaya normativno-issledovatel'skaya stantsiya Zagotzerno
(Grain-handling machinry)

OSADCHIY, S.

Grain conveyer. Muk.-elev.prom.22 no.3:21-22 Mr '56. (MLRA 9:7)

1.Kiyevskaya normativno-issledovatel'skaya stantsiya Zagotzerno.
(Grain-handling machinery)

OSADCHIY, S.

Shelling and drying corn upon delivery. Muk.-elev.prom.22 no.5: 30 My '56. (MIRA 9:9)

1.Kiyevskaya normativno-issledovatel'skaya stantsiya Zagotzerno.
(Corn (Maize)--Storage)

ACC NR: AP7002006 SOURCE CODE: UR/0118/66/000/012/0033/0034

AUTHOR: Platnov, P. N. (Doctor of technical sciences); Tribel'gorn, E.V. (Candidate of technical sciences); Osadchiy, S. A.

ORG: none

TITLE: Small-size contactless time relay.

SOURCE: Mekhanizatsiya i avtomatizatsiya proizvodstvo, no. 12, 1966, 33-34

TOPIC TAGS: time relay, cold cathode tube

ABSTRACT: A time delay relay developed at the Odessa Technological Institute in Lomonosov with continuously variable delay time from 1 to 1200 sec is reported. The relay, encased in a dust- and waterproof container which has an 8-pin connector, uses two MTkh-90 cold-cathode thyratrons (see Fig.1) to realize the delay function. The maximum error of the preset time delay is ±10%. Thyratron (T_1) working as a triode together with the RC circuit realizes the delay function while thyratron (T_2) is used for resetting T_1. The large amount of delay is possible because the C_1 capacitor charging current is commensurate with its leakage current. Orig. art. has: 1 figure and 1 table.

Card 1/2 UDC: 621.563.5

ACC NR: AP7002006

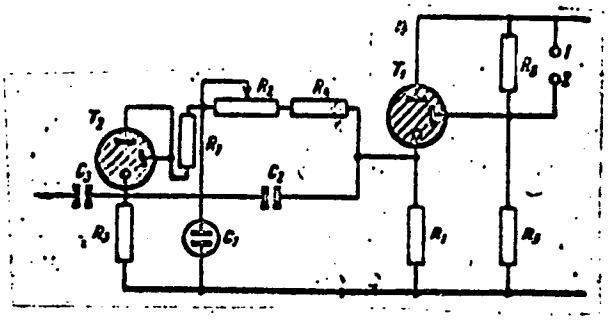


Fig. 1. Schematic drawing of time delay relay

SUB CODE: 09/ SUBM DATE: none

Card 2/2

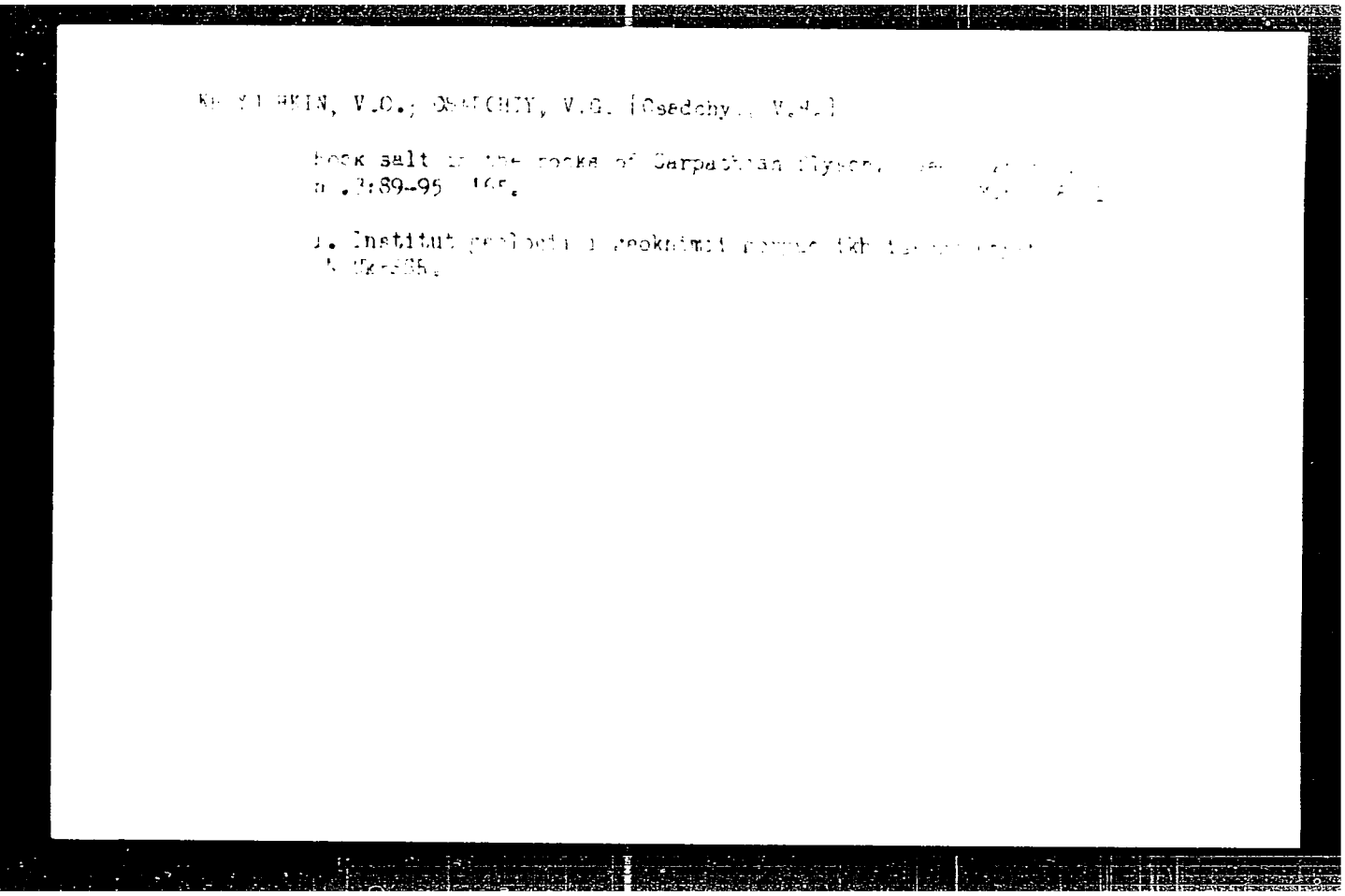
OSADCHIY, V.G.

Evaluation of oil and gas potentials based on geothermal data. Neft. i gaz. prom. 3:6-8 Jl-S '65. (MIRA 18:11)

OSADCHIY, V.G.; BAYBAKOV, V.V.

Characteristics of the change in physicochemical properties of petroleums in the Bitkov oil field. Neftegaz.geol. i geofiz. no.8:39-42 '65. (MIRA 18:8)

1. Institut geologii i geokhimii goryuchikh iskopayemykh AN UkrSSR.



OSADCHIY, V. I

Irrigation

Mechanization of operations for transition to a new system of irrigation. [illegible], No. 5, 1952.

9. Monthly List of Russian Accessions. Library of Congress, October 1953, Uncl.

S/194/62/000/007/151/160
D413/D308

AUTHORS: Osadchiy, V.I., and Shvetskiy, B.I.

TITLE: A self-contained pulse voltmeter

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 7, 1961, abstract 7-7-275 g (Nauchn. zap. L'vovsk. politekhn. in-t, no. 78, 1961, 156 - 171)

TEXT: After considering various input circuits for pulse voltmeters, the paper describes a circuit for a self-contained pulse voltmeter in which the pulse being measured actuates the release of the preceding indication. The memory circuit of the voltmeter uses two triodes and two diodes, and in it the voltage on the memory capacitor is made to follow automatically the level of the input signal. The choice of circuit components is discussed. The basic technical characteristics of the voltmeter are: limits of measurable voltage 1 - 3000 V; measurement error up to 5 % for pulse voltages (duty cycle 1 in 105), and up to 3 % for continuous voltages (over the range 100 c/s - 1.5 mc/s); minimum acceptable pulse width 50 usec. [Abstracter's note: Complete translation.]

Card 1/1

PAVLOV, I.M.; OSADCII, V.I. [Osadchiy, V.I.]

Influence of the lamination speed in the automatic mills on the quality of pipes. Analele metalurgie 16 no.4:130-132 C-D '62.

8(6), 14(10) SOV/112-59-3-4651

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 3, p 52 (USSR)

AUTHOR: Osadchiy, V. P.

TITLE: Experience with Building a Roller-Compacted Dam from Gypsum-Treated Soils Across the Outlet of the Kuyu-Mazar Reservoir
(Opyt vozvedeniya ukatannoy plotiny iz gipsirovannykh gruntov nad vodovypuskom Kuyu-Mazarskogo vodokhranilishcha)

PERIODICAL: Tr. Sredneaz. n.-i. in-ta irrigatsii, 1957, Nr 90, pp 155-163

ABSTRACT: A nonuniform mixture of sandy soil, tertiary clay, and gravel was used for building the dam. The mixture was subjected to a special treatment (moistening, breaking, stirring) in the borrow pits prior to its placing on the dam. The dam was filled in horizontal layers. Spreading the layers was done by D-159 bulldozers and a D-241 grader; in close quarters, by hand rake. Joining a previously placed layer with a new one was obtained through harrowing the former to a depth of 3-5 cm by means of a diesel cultivator. For

Card 1/2

8(6), 14(10) SOV/112-59-3-4651

Experience with Building a Roller-Compacted Dam from Gypsum-Treated . . . .

compaction of a placed layer, a two KKV-Sh roller unit was used; in close quarters, an S-80 crawler tractor and type OMSP-5 pneumatic hammers were used; Nr 16 channel-iron tamping plates were fastened to the hammer bits. All work was done by a flowline method. Use of pneumatic devices is particularly noted. Borrow-pit layout, drawings, and equipment characteristics are presented.

A.P.T.

Card 2/2

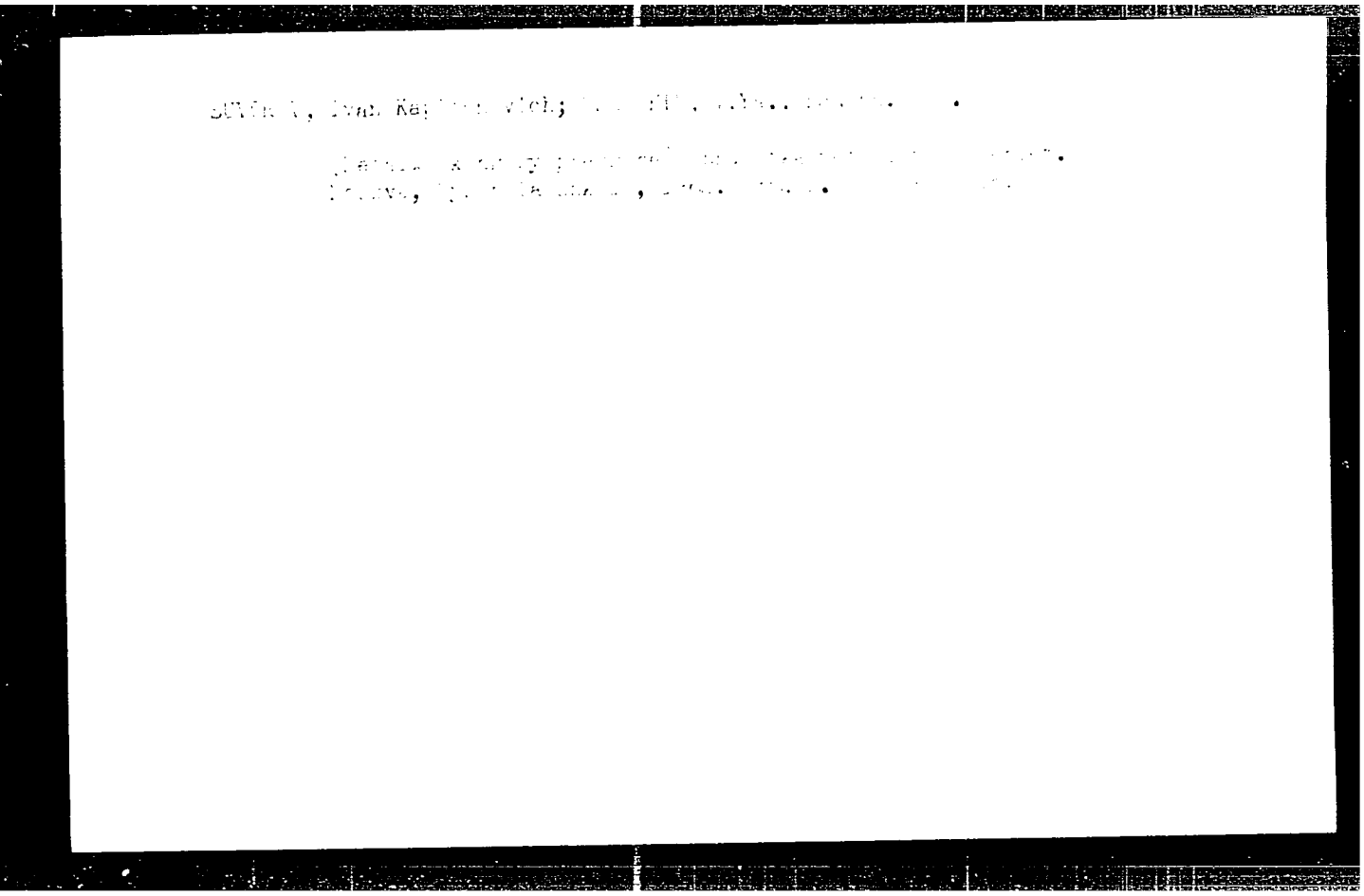
OSADCHIY, V.P.

Lowering the expenditure of labor in raising corn. Zhivotnovodstvo 20 no.4:32-33 Ap '58. (MIRA 11:3)

1. Zamestitel' nachal'nika Dnepropetrovskogo oblsel'khozupravleniya.
(Dnepropetrovsk Province--Corn (Maize))

OGNYANIK, S.S.; OSADCHIY, V.V.

Determining fluorine in welding fluxes by the pyrohydrolysis method. Avtom. svar. 17 no.10:89 O '64. (MIRA 18:1)



18(0)

AUTHOR: Osadchiy, V. Ya.

SOV/162-58-4-25/47

TITLE: Analysis of Forces and Conditions at the Gripping Process in Diagonal Rolling Mills (Analiz sil i usloviya zakhvata v stanakh kosoy prokatki)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, Nr 4, pp 149-157 (USSR)

ABSTRACT: The papers (Refs 1-9) are mentioned. In a resulting discussion, it was stated that the formula derived by I. T. Yemel'yanenko (Ref 9) for the gripping process in diagonal rolling mills is wrong and the new formulas suggested are doubtful. Here a formula (8) is derived for the condition at the gripping process in a general form. In deriving this formula, the starting point is the presence of axial and tangential gliding of the semi-finished material between the rollers. On account of this gliding, the direction of the frictional force does not coincide with the direction of the circumferential speed. It deviates from the latter by a certain angle φ, the magnitude of which depends on the ratio between axial and tangential gliding. The direction of the frictional force vector may be found graphically as the difference between the vector of the

Card 1/3

roll-surface velocity and the vector of the semifinished-material surface velocity. In formula (8) all angles are parameters of the cylinder rolling process. They are given and known except for the angle φ. The angle φ is a function of the axial and the tangential gliding. For the determination of φ the formulas (9) and (10) are derived. If the factors of axial and tangential gliding, as well as the angle of inclination of roller β, are known, the angle δ can be found by the formula (10). Then, δ is introduced into formula (9) and the angle φ required is obtained. The φ-value is introduced into formula (8), and the frictional factor required in the gripping process in the axial direction is determined. For a complete analysis of formula (8), 16 different cases of combination of factors are examined for the gliding in axial and tangential direction. It is shown that the gliding of the semifinished material between rollers is something like a natural regulator compensating the lack or excess of frictional force. There are 5 figures, 1 table and 9 Soviet references.

Analysis of Forces and Conditions at the Gripping Process in Diagonal Rolling Mills SOV/163-58-4-25/47

ASSOCIATION: Moskovskiy institut stali (Moscow Steel Institute)

SUBMITTED: January 10, 1958

Card 3/3

OSADCHIY, V. Ye.; GLEYBERG, A.Z.

Measuring specific pressure caused by transverse rolling. Biul. TSNIICHM no. 9:44-46 '58. (MIRA 11:7)

1. Moskovskiy institut stali(for Osadchiy). 2. Pervoural'skiy Novotrubnyy zavod(for Gleyberg).
(Rolling(Metalwork))
(Photoelectric measurements)

OSADCHIY, V.Ya.; KAUFMAN, M.M.; NODEV, E.O.; RAKHNOVETSKIY, L.S.

New gauging of mandrels used in broaching stainless steel.
Biul. TSNIICHM no. 10:45-46 '58. (MIRA 11:7)

1. Moskovskiy institut stali(for Osadchiy). 2. Pervoural'skiy Novotrubnyy zavod(for Kaufman, Nodev, Rakhnovetskiy).
(Broaching machines)

PHASE I BOOK EXPLOITATION SOV/4782

Moscow. Institut stali

Proizvodstvo i obrabotka stali i splavov (Production and Treatment of Steel and Alloys) Moscow, Metallurgizdat, 1960. 462 p. (Series: Its: Sbornik, 39) 2,100 copies printed.

Ed.: Ye. A. Borko; Ed. of Publishing House: S. L. Zinger; Tech. Ed.: M. R. Kleyman; Editorial Council of the Institute: M. A. Glinkov, Professor, Doctor of Technical Sciences; N. F. Grigorash, Docent, Candidate of Technical Sciences; V. P. Yelyutin, Professor, Doctor of Technical Sciences; A. A. Zhukhovitskiy, Professor, Doctor of Chemical Sciences; I. N. Kidin, Professor, Doctor of Technical Sciences; B. G. Livshits, Professor, Doctor of Technical Sciences; A. P. Lyubimov, Professor, Doctor of Technical Sciences; I. N. Pavlov, Corresponding Member, Academy of Sciences USSR; and A. M. Pokhvisnev, Professor, Doctor of Technical Sciences.

PURPOSE: This book is intended for technical personnel in industry, scientific institutions and schools of higher education, dealing with open-hearth and electric-furnace steelmaking, metal rolling, physical metallurgy, metallography, and heat treatment. It may also be used by students specializing in these fields.

Card 1/10

COVERAGE: The book contains results of theoretical and experimental investigations of metallurgical and heat-engineering processes in open-hearth and electric furnaces. Data are included on the following: desulfurizing of pig iron outside the blast furnace, interaction of oxides of the carbide-forming metals with solid carbon, the change of content of gases in the bath of the open-hearth furnace in various periods of melting, intensification of the electric melting of steel, etc. Other articles deal with the nonuniformity of deformation in rolling, the study of the continuous rolling process, the dependence of the friction - slippage coefficients in rolling on a number of factors, and other problems in the preworking of metals. Articles on physical metallurgy and the theoretical principles and techniques of the heat treatment of steel are also included. No personalities are mentioned. References accompany most of the articles. There are 207 references, both Soviet and non-Soviet.

Card 2/10

Card 6/10

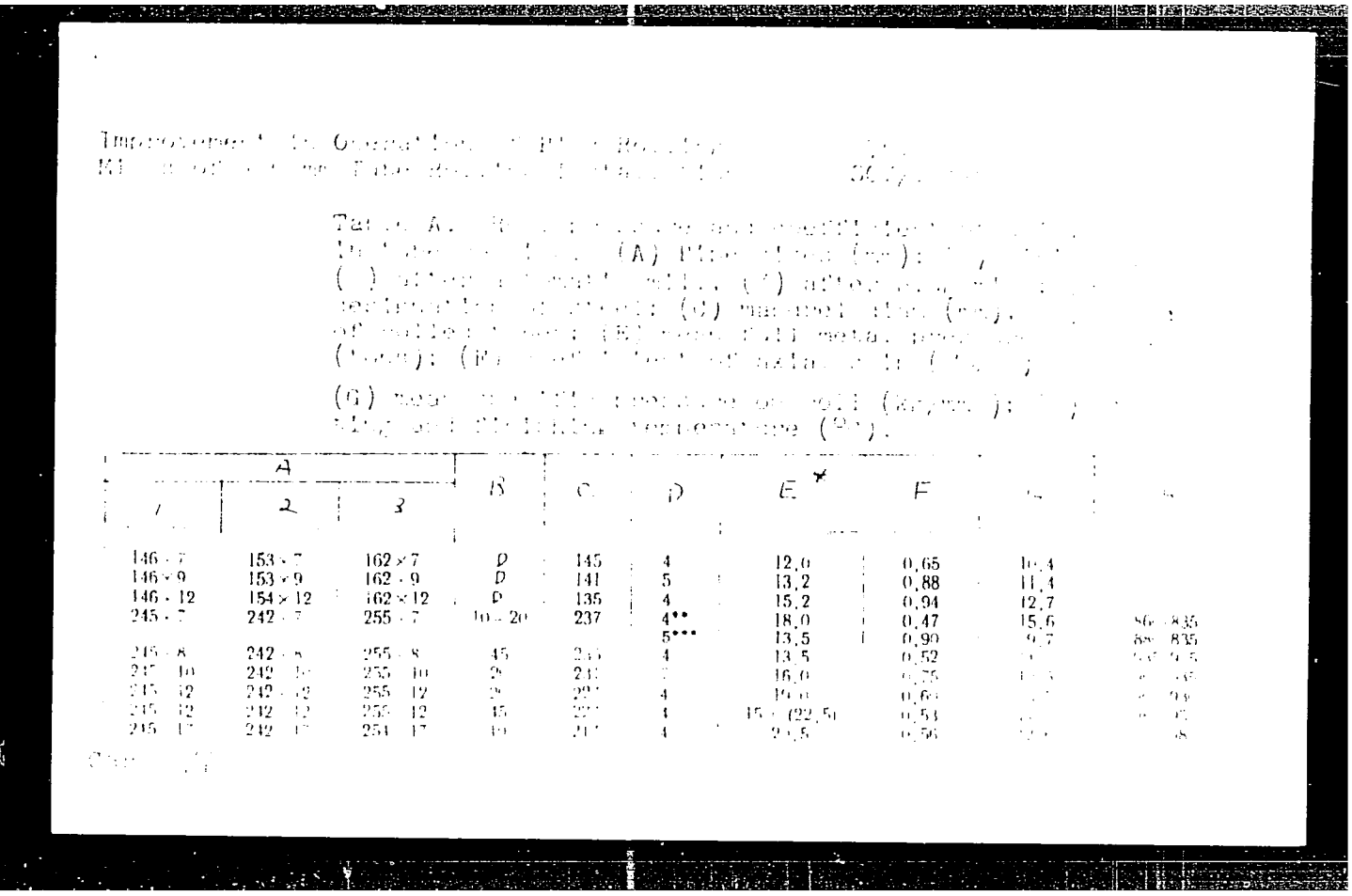
AUTHORS:

TITLE:

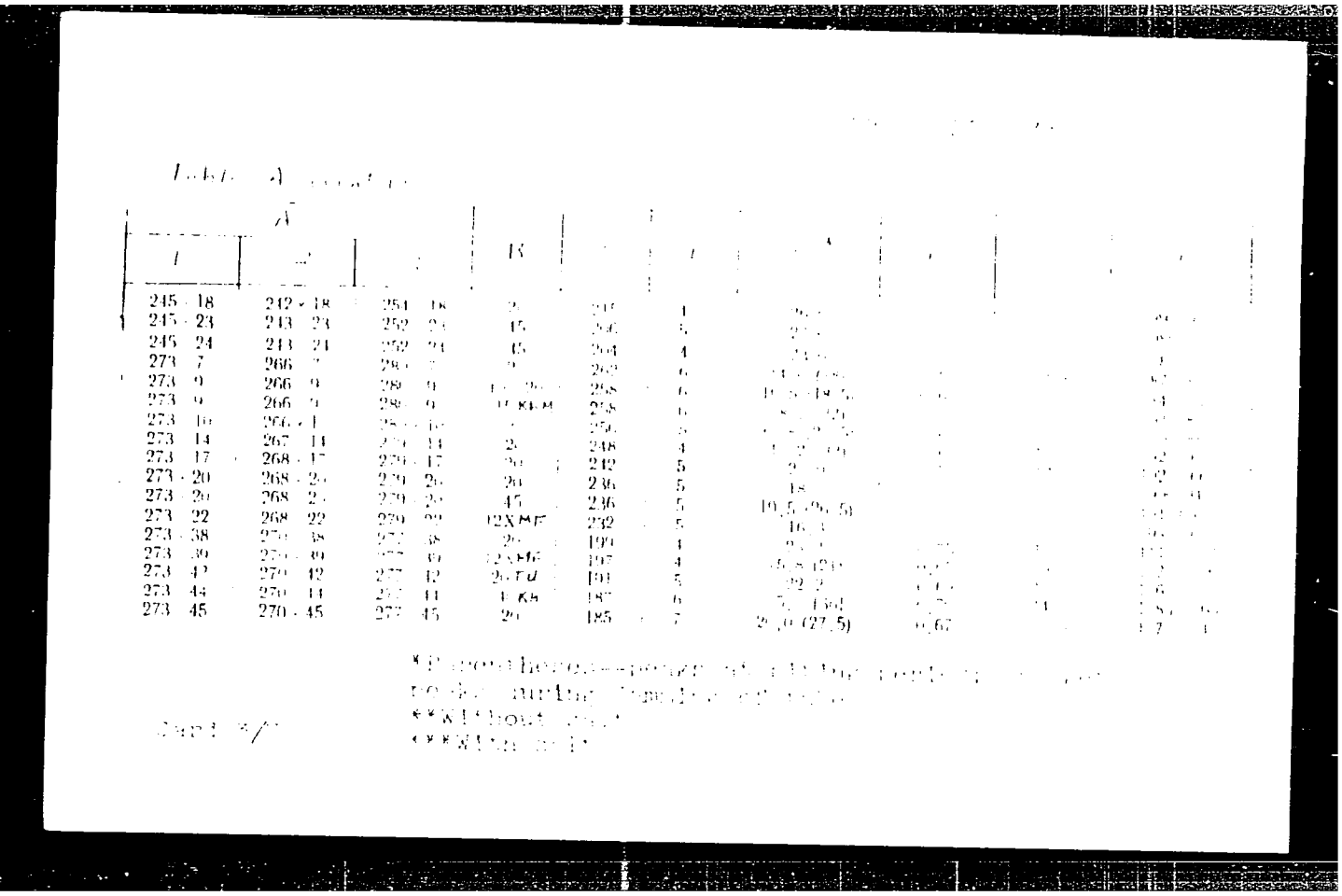
PERIODICAL:

ABSTRACT:

Card 1/



A			B	C	D	E *	F	G	H
1	2	3							
146 × 7	153 × 7	162 × 7	D	145	4	12,0	0,65	10,4	
146 × 9	153 × 9	162 × 9	D	141	5	13,2	0,88	11,4	
146 × 12	154 × 12	162 × 12	D	135	4	15,2	0,94	12,7	
245 × 7	242 × 7	255 × 7	10 – 20	237	4**	18,0	0,47	15,6	86 – 835
					5***	13,5	0,90	9,7	86 – 835
245 × 8	242 × 8	255 × 8	45	245	4	13,5	0,52	[illegible]	[illegible]
245 10	242 10	255 10	20	243	[illegible]	16,0	[illegible]	[illegible]	[illegible]
245 12	242 12	255 12	20	227	4	19,0	0,64	[illegible]	[illegible]
245 12	242 12	255 12	45	227	4	15 – (22,5)	0,53	[illegible]	[illegible]
245 17	242 17	254 17	10	217	4	23,5	0,56	[illegible]	68



245	18	242	18	251	18	2	215	1			
245	23	243	23	252	23	15	236	5			
245	24	243	24	252	24	15	264	4			
273	7	266	7	280	7	9	269	6			
273	9	266	9	280	9	[illegible]	258	6			
273	9	266	9	280	9	12 KEM	258	6			
273	10	266	1	280	10	[illegible]	250	6			
273	14	267	14	279	14	20	248	4			
273	17	268	17	279	17	30	242	5			
273	20	268	20	279	20	20	236	5			
273	20	268	20	279	20	45	236	5			
273	22	268	22	279	22	12XMF	232	5			
273	38	270	38	282	38	20	191	4			
273	39	270	39	282	39	12XMF	197	4			
273	42	270	42	282	42	20 FU	191	5			
273	44	270	44	282	44	1 KM	187	6			
273	45	270	45	282	45	20	185	7	20 (0 (27.5)	0.67	

Improvement in operation of [illegible]
Mills of [illegible]

[illegible] of the tube [illegible]
caused by [illegible]
four [illegible]
rolls. [illegible]
normal [illegible]
the other [illegible]
between [illegible]
the tube [illegible]
composition of steel of the other. [illegible]
increases (see Table A) to [illegible]
on the rolls. This [illegible]
be a decided [illegible]
slip. With [illegible]
the pressure on the rolls increases [illegible]
the greater reduction of metal during the half-[illegible]
of the tube. After reaching a maximum the pressure
gradually falls off [illegible]
wall thickness [illegible]
coefficient [illegible]
of the tube. [illegible]
importance [illegible]

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$$P_m = \frac{P_{act}}{F} \qquad P_r = P_b \qquad (2)$$

$$P_b = 2\eta_b \frac{\sigma_s h^3}{d_{ot} - h} l_b , \qquad (3)$$

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where η [illegible] is coefficient of [illegible]
under the axis of rolling force; [illegible]
[illegible] thickness of metal under rolls; [illegible]
diameter of roller tube; l_b = length of [illegible]
action of rolls. Experimental data revealed that
the difference between the mean specific pressure
obtained by dividing the full pressure of metal on
rolls by the area of contact and the mean specific
pressure of reduction calculated from Eq. (1) varies
between 10 and 20% (see Table A). In designing new
mills the authors suggest calculating the full pressure
of metal on the rolls by either utilizing (a) the
mean specific pressure or (b) the "[illegible]
[illegible] and determined [illegible]
Burtsev, V. F. ("Power Output [illegible]
in Plug Mill," in [illegible] articles, "Application
of Forces of Pressure," Issue IV, Metallurgizdat, [illegible]
and Smirnov, V. V. ("Determination of Power [illegible]
in Tube Rolling in Plug Mill," in collection [illegible]

same as above). (4) Various types of lubricants were tested in order to reduce rolling time by decreasing the slip between metal and rolls. As seen from Table A the coefficient of axial slip is considerably increased by spraying the inside of the tube with NaCl before rolling. However, NaCl promotes the escape of gas and enhances corrosion. A mixture consisting of one part salt, one part graphite, and three parts air-dried scale decreased slip by 1.17 times and contaminated the working area considerably less than NaCl. Rolling process was much more stable and mandrel wear decreased. The authors emphasize that the use of the proper lubricant cuts rolling time from 20 to 30%. For more efficient operation of the plug mill the authors recommend: (1) improving roll pass design and make; (2) establishing optimal setting up parameters; (3) systematic use of lubricant. There are 2 figures; 1 table; and 5 Soviet references.

ASSOCIATION: Moscow Steel Institute (Moskovskiy institut stali), Southern Pipe Plant (Yuzhnotrubnyy zavod)

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TITLE: Metal Pressure on the Piercing Mill Rolls

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, 1960, Nr 7, pp 103-110

TEXT: An experimental investigation at Nikopol'skiy Yuzhnotrubnyy zavod (Nikopol' Tube Works) is described. The purpose was to study the dynamics of the process, which is important for full utilization of the power and mechanical strength of rolling mills as well as for establishing an optimum rolling process technology. The "400" installation of the plant used for experiments consists of two continuous heating furnaces; two piercing mills (with 960-860 mm diameter rolls and 2,350 kw motor); one reheating furnace before the spreading mill; an automatic spreading mill; two rolling-over mills; one sizing mill, and a cooler with a straightening machine. Both piercing mills are operating only when rolling large-diameter and thin-walled tubes; otherwise the piercing mill Nr 2 operates alone. It produces billets in a single piercing Metal pressure on the

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Metal Pressure on the Piercing Mill Rolls

piercing mill rolls was measured with dynamometers placed between the screwdowns and the work roll bolster (Figure 1), in especially prepared casings (Figure 2). Pressure oscillograms are shown (Figure 3) and "decoded" (in Table 1). No sufficiently accurate theoretical or experimental data are yet available on the dependance of specific metal pressure on the basic piercing process parameters, and data obtained by experience are usually being employed in calculations of the piercing mill parts and technology. In the described investigation, mean pressure was determined by dividing the experimentally determined full metal pressure on the rolls by the contact area between the metal and the rolls: $p = \frac{P}{s}$ kg/mm^2.

A.I. Tselikov's method /Ref 3/ was used for determining the contact area, taking into account the ovality of the billet. The mean specific pressures are given in a table (Table 2). It was stated that for alloy steel the mean specific pressure is 10-14 kg/mm^2, and for carbon steel it reaches 7.5-12 kg/mm^2, which matches the data obtained in other investigations /Refs 1, 4 and 5/. The following conclusions were drawn: 1) In the two piercing mills studied the pressure was 33-92 ton, which is not high for this type of mills. In rolling

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