

KLIKA, OTAKAR

Klika, Otakar, Stavba sdlovacich ,arizeni (Vyd.1)Praha, Statni pedagogicke nakl,
1952-(Ucebni texty vysokych skol) (Building communications systems. 1. System A-
1952 In portfolio. illus, diagra.)

SO: Monthly List Of East European Accessions,LC. Vol.3, No.5 May 1954/Unclassified

KLIKA, OTAKAR

Reseni telefonnich ustreden a sdelovacich stiti; sestava B-1951. [Vyd. 1.] Praha, Statni pedagogicke nakl., 1952. (Ucebni texty vysokych skol) [Systems of central telephone stations and communication lines; system B-1951. In portfolio. Illus., graphs]

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, LC., VOL. 3, NO. 1, Jan. 1954, Uncl.

KLIIKA, OTAKAR

Tabulky k prednaskam Stavba sdelovacich zarizeni. [Vyd. 1.] Praha, Statni peda-
gogicke nakl., 1952. (Ucebni texty vysokych skol) [Tables to the lectures
"Building Communication Systems." I. The 1952 system. In portfolio. Diagra.]

SO: Monthly List of ~~XXXXXXXX~~ Accessions, East European Vol. 3, No. 2, 1954
Library of Congress, February, 1954, Uncl.

KLIKA, OTAKAR

Místní síť. [Vyd. 1.] Praha, Státní pedagogické nakl., 1953. 221 p. (Učební texty vysokých škol) [Local networks. Diagr.]

SO: MONTHLY LIST OF EAST EUROPEAN ACCESSIONS, LC., VOL. 3, No. 1, Jan. 1954, Uncl.

KLIKA, OTAKAR

**Kreslení schémat ve sdělovací technice. (Vyd. 1) Praha, Státní nakl.
technické literatury, 1954. 239 p. (Drafting diagrams in telecommunication
engineering. 1st ed. illus., bibl., m. diagrs., index)**

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

KLIKA, O.

Klika, Otakar. Common problems of telecommunications and mathematical machines. Stroje na Zpracování Informací 3 (1955), 15-30 (1956). (Czech. Russian and English summaries)

Digital computers and telephone switchboard networks are compared. They have many resemblances and common functional parts, such as memory units, switching equipment for setting up a connected path, etc. In switchboards, the numerical information supplied by dialing is often translated into another number system. The use of vacuum tubes, transistors and relays is discussed briefly. V. Vand (University Park, Pa.)

cc
1/1

[Handwritten initials]

Kl'ka, O.

621 393.65
5336. *Artificial operations in the control of a switcher system.* O. KL'KA. *Sobremennye Obzory*, 16, No. 4, 180-7 (1958) in Czech.

The problem considered consists of translating the decimal code of a subscriber's numbering scheme into appropriate "position" numbers in a non-decimal system of switches. The case of a simple arithmetic translation, i.e. when the relationship between the two numbering schemes can be expressed by a simple formula, is discussed in detail. The problem of translation in fields with 300 and 200 outlets is solved by applying some of the results of the congruency theorem (from the theory of numbers). The question of optimum translation is considered and the case of "non-arithmetic" translation is briefly analysed.

EE

WST

KLIKA

Czechoslovakia

Die Nachrichtentechnik und mathematische Maschinen.

SO: Nachrichten-Technik, March 1956, ~~XXXXXXXXXX~~ Unclassified.

KLIKA

Pentagonal mirror as an optical micrometer. p. 136. (Geodetický a Kartografický
Obzor, Vol 2, No. 7, Jul 1956, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (KEAL) LC, Vol 6, No. 8, Aug 1957. Uncl

KLÍKA, Otakar

Spojovací technika, 1./díl/. (Communication Technique. Vol. 1; a university textbook. 1st ed. illus., bibl., indexes) Prague, SNTL, 1957 403 p.

A comprehensive study on the communication technique and its principal branches. The eight chapters deal with the origin, types, combinations, and signaling in communication installations, with manual, electromechanical, and semi-automatic systems, and with the prospects for electronic systems. The last three chapters deal with the final and decentralized stages in installations, the study of circuits and operational capacity, as well as the number of communication lines.

Bibliografický katalog, CSR, Česke knihy, No. 31, 10 Sept 57. p. 668.

KLIKA, O

Klika, O.; Elicer, K.

Klika, O.; Elicer, K. A conference on automation of long-distance telephone networks in Czechoslovakia. (Supplement) p. 21.

Vol. 18, no. 1, Jan. 1957

SLABOPROUDY OBZOR

TECHNOLOGY

Czechoslovakia

So. East European Accessions, Vol. 6, May 1957
No. 5

"APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723110009-8

APPROVED FOR RELEASE: 09/18/2001

CIA-RDP86-00513R000723110009-8"

KLIKA, O.

The beginning of the automatic telephone in Czechoslovakia. p. 285.

(Slaboproudý Obzor. Vol. 18, no. 5, May 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EZAL) LC, Vol. 6, no. 10, October 1957. Uncl.

KLIFA, O.

Na prahu nasi techniky (The Beginnings of our Technology); a book review.
(Supplement)

P. LI. (SLABOPROUDY OBZOR.) (Prahá, Czechoslovakia) Vol. 19, No. 1, Jan. 1958

SO: Monthly Index of East European Accession (EEAI) LC. Vol. 7, No. 5, 1958

KLIKA, O.

"Theoretical prerequisites for the automation of telephone-relay production." p. 205.

SLABOPROUDY OBZOR. (MINISTERSTVO PRESNEHO STROJIRENSTVI, MINISTERSTVO SPOJU A VEDECKA TECHNICKA SPOLECNOST PRO ELEKTROTECHNIKU PRI CSAV.) Praha, Czechoslovakia, Vol. 20, no. 4, Apr. 1959.

Monthly List of East European Accessions (KEAI), LC, Vol. 8, No. 9, September 1959.
Uncl.

KLIKA.

"Fourth Scientific Conference of the Faculty of Electrical Engineering in Prague," P. 337.

SLABOPROUDY OBZOR. (Ministerstvo prenosho strojirenstvi, Ministerstvo spoju a Vedecka technicka spolecnost pro elektrotechniku pri CSAV). Praha, Czechoslovakia, Vol. 20, No. 5, May 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

KLIKA, O., BOZEK, F.

"Further collaboration between colleges and practical production."
P. 341.

SLABOPROUDY OBZOR. (Ministerstvo presneho strojirenstvi, Ministerstvo spoju a Vedecka technicka spolecnost pro elektrotechniku pri CSAV).
Praha, Czechoslovakia, Vol. 20, No. 6, June 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,
August 1959.
Uncla.

KLIKA, O.

Twenty volumes of Slaboproudy Obzor. P729

SLABOPROUDY OBZOR (Ministerstvo vseobecnibe strojirenstvi, Ministerstvo spajk
a Ceskoslovenska vedecka-technicka spolecnost, sekce elektrotechnika) Praha,
Czechoslovakia, Vol. 20, no. 12 Dec. 1959

Monthly List of East European Accessions (KEAI), LC. Vol. 9, no. 2,
Feb. 1960

Uncl.

Z/039/60/021/07/001/037
E073/E535

AUTHOR: Klika, Otakar, Professor Engineer

TITLE: Development of our Telecommunications During the Last
Fifteen Years

PERIODICAL: Slaboproudý obzor, 1960, Vol 21, No 7, pp 385-386

ABSTRACT: A very general review of organizational development of
the telecommunications industry in Czechoslovakia from
1945 and some of the prominent technical achievements,
emphasizing that at present the Czechoslovak tele-
communication industry is fully capable of building all
the equipment required for the Czech telecommunication
system without foreign assistance.

Card 1/1

KLÍKA, Otakar, prof. ins.

Evaluation of selector techniques. Slaboproudý obzor 21 no.6:
321-329 Je '60. (KEAI 9:10)

1. Ceske vysoke uceni technicke.
(Telecommunication)

KLIKA, Otakar, prof., ins.; BIL, Josef

Analysis of selector switching fields. Slaboproudy obsor
22 no.1:5-9 '61. (EEAI 10:5)

1. Ceske vysoke uceni technicka.
(Electronic equipment) (Telecommunication)

KLIKA, Otakar, prof., ins.; LEKL, Miroslav, ins.

The influence of applying electronics in a selector-type exchange
on its economic parameters. Slaboproudý obzor 22 no.3:173-176 Mr '61.
(KEAI 10:6)

1. Caske vysoke uceni technicke, Praha.
(Telephone)

KLIKA, Otakar, ins., professor

Reliability of communication means. Cs spojč 7 no.1:3-6 Ja '62.

1. Ceske vysoke uceni technicke, Praha.

ALIKA, Otakar, prof., ins.

Outlook for the development of telegraphy and telephony.
Slaboproudý obsor 23 no.1:9-17 Ja '62.

KLIKA, Otakar, prof., ins.

"Library of telecommunication technology". Cs spoje 7 no.3:24-25
Mr 162.

KLIKA, O., prof., ins.

The 6th Scientific Conference of the Electrotechnical Faculty
of the Higher School of Technology in Prague. Slaboprudy
obsor 23 no.7:425-426 J1 '62.

KLIKA, O., prof., ins.

A conference on measurement techniques in communications.
Slaboproudy obsor 23 no.8:486-487 ag '62.

KLIKA, Otakar, prof, ins.; NOVAK, Josef, ins.

A small linear analyzer for solving transport problems. Slatoprudy
obzor 23 no.9:500-504 S 162.

1. Ceske vysoke uceni technicke, Praha.

KLIKA, Otakar, prof., ins.

"Telecommunications". Reviewed by Otakar Klika. Slaboproudy obsor
24 no.1:5,6,7,8. Literatura 24 no.1:13,15 '63.

KLIKA, Otakar, ins., prof.

Classification of checks, and their frequency in the automatic telephone central offices. Cs spoje 8 no.1:7-9 F '63.

1. Ceske vysoke uceni technicke, Praha.

KLIKA, Otakar, prof., ins.

Automatic measurement and testing in the telephone central stations. Cs spoje 8 no.2:3-6 Ap '63.

1. Ceske vysoke uceni technicke, Praha.

KLIKA, Otakar, prof., ins.

Discrete codes. Slaboproudý obsar 24 no.9:Suppl.:Priloha pro
mlade inzenyry. 24 no.9:P45-P52 '63.

KLÍKA, Otakar, inz., prof.; LEHL, Miroslav, inz.

Conversion and the basic arithmetic operations in numerical systems. Slaboproudý obsor 24 no.11: Supplement: Priloha pro mlade inženýry 24 no.11:P57-P60 N°63.

KLIKA, O., prof. ins.

Electrotechnical drawing in telecommunications. Cs spoje 9
no.3:17 Je '64.

1. Czech Higher School of Technology, Prague.

KLIIKA, Otakar, prof. ins.

Analysis of the basic approach to the technology of cable forms. Slaboproudy obsor 25 no.3:127-134 Mr '64.

1. Czech Higher School of Technology, Prague.

KLIKA, Otakar, prof. inz.

British experimental electronic telephone exchange.
Slaboproudý obzor 25 no.4:230-232 Ap '64.

KLIKA, Otokar, prof. inz.

Experimental ESH II type central telephone exchange made by
the Siemens and Halske Factory. Slaboproudý obzor 25 no.6:
362-364 Je '64.

SOURCE: Slaboproudy obzor, v. 25, no. 8, 1984, 475-482

DESCRIPTORS: Insulating material, telecommunication, telecommunication

Abstract: Authors' English summary, modified. Removal of insulation from telecommunication wires depends on the batch size, facility, manufacturing technology in general. The result of these factors is analyzed. Machines designed as fixed and portable are described. Tables contain a survey of all relations, and an evaluation is made.

KLIKA, Otakar, prof. inz.

Technological concept of telecommunication systems. Slaboproudy
obzor 25 no.9;Suppl.;Priloha pro mlade insenyry 25 no.9;P41-P52 '64.

KLIKA, Otakar, prof. inz.

"Slaboprouda hlidka", the first Czechoslovak periodical on
light-current engineering. Slaboproudy obzor 25 no.11:684-
687 N '64.

L 18502-66 EWP(t) JD

ACC NR: AP8010256

SOURCE CODE: CZ/0034/65/000/003/0207/0209

AUTHOR: Moucka, Milan (Engineer; Candidate of sciences); Baranek, Jiri (Engineer); Klika, Otto

ORG: Research and Materials Testing Institute, NHKO, Ostrava - Kuncice (Vyskumny skuseni ustav NHKO) 44
B

TITLE: Determination of the basicity of steel slag, and of FeO content by measuring the heat of reaction 55/16

SOURCE: Hutnické listy, no. 3, 1965, 207-209

TOPIC TAGS: steel, slag, heat of reaction, iron compound, thermistor

ABSTRACT: The importance of the slag composition is discussed. The speed of the determination is important for production control. Authors' method for fast analysis based on the heat of reaction is described. The method uses a thermistor recorder; the apparatus designed for the method, and the method of operating it are described. The calibration curve for the determination of basicity is discussed; accuracy is about 1.5%. The ferrous compounds are oxidized to ferric by hydrogen peroxide or dichromate. Best results were obtained with a 30% solution of the peroxide. As the method gives 5 - 15% lower results, preparation of a correction table is described. The total time of analysis is only 2-3 minutes. Orig. art. has: 5 figures. [JPRS]

SUB CODE: 11, 20 / SUEM DATE: none / ORIG REF: 001 / OTH REF: 001

Card 229c

CZECH/34-59-6-11/23

AUTHORS: Kremer, R., Ing and Klika, R., Metallurgical Engineers

TITLE: Discussion of the Paper of Ing. Dr. Vl. Sedláček:
"Determination of the Heating Time and its Practical
Verification" (Diskuse k článku Ing. Dr. Vl. Sedláčka:
Určení doby ohřevu a jeho praktické ověření)

PERIODICAL: Hutnické Listy, 1959, Nr 6, pp 512-513 (Czechoslovakia)

ABSTRACT: Doubts are expressed on the possibility of practical application of the method of calculation suggested by Vl. Sedláček. He does not calculate the heating time but determines which of four selected radiation coefficients correspond most closely to reality. In view of the numerous simplifying assumptions and the used method of experiments, these coefficients cannot be considered as being accurately determined and they can only be applied for calculating the heating time of titanium rods under the conditions pertaining to the particular experiments described in the paper of Sedlacek.

Reply of the author of the original paper, Ing. Dr. Vl. Sedláček.

Card 1/2

It is pointed out that the method described in the

CZECH/34-59-6-11/23

Discussion of the Paper of Ing. Dr. Vl. Sedláček: "Determination of the Heating Time and its Practical Verification"

original paper proved satisfactory at VÚK and enabled reducing considerably the heating times of titanium rods not only under experimental conditions but under normal shop conditions for over a year. There are 5 references, all of which are Soviet (In the author's reply).

ASSOCIATION: VŠB, Ostrava

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Card 2/2

BECVAR, J.; KLIKA, R.; SOMMER, B., ins.; SESTAK, Bohdan; KNOFOVEC, L.

Information on metallurgy. Hut listy 16 no.11:829-836 N
'61.

PUNCOCHAR, Z., ins.; JICINSKY, J., dr., ins.; HANCL, J.; BECVAR, J.; STROBL, L.;
KARNOVSKY, ins.; KLIKA, R.; KRUMNIKL, Fr., ins.; SORAL, J., ins.;
TRINDL, J.; VRENSKA, ins.

Information on metallurgy. But listy 17 no.11:816-829 N '62.

KLKA, Rens, ins.

Use of automatic computers for controlling the thermal conditions
of open-hearth furnaces. Energetika Cs 12 no.3:143-145 Hr '62.

1. Vysoka skola banska, Ostrava.

KLIKA, Rene, ins.

Intensification of heat transfer in open hearth furnaces.
Hut listy 17 no.10:689-699 0 '62.

1. Vysoka skola banska, Ostrava.

KLIKA, René, inz.

Analysis of the heating effect of open hearth furnaces on the basis of probability theory. Hut listy 17 no.4:286-291
Ap '62.

1. Vysoka skola banska, Ostrava.

KLIKA, R.; KREMER, R.

"Industrial furnaces" by V. Trinks, Pt.2. Reviewed by R.Klika,
R. Kremer. Hut listy 18 no.7:532 J1 '63.

KLIKA, Rene, hutni inženýr; KREMER, Rudolf, doc., ins.

High-efficiency steel recuperators. Hut listy 18 no.8:585-588 Ag '63.

1. Vysoka skola banaka, Ostrava.

KREMER, Rudolf, doc, ins. CSc.; KLIKA, Rene, hut. ins.

Fuel utilisation coefficient of metallurgical furnaces.
Sbor VSB Ostrava 9 no.5:675-686 '63.

1. Higher School of Mining, Ostrava. Submitted March 10,
1963.

TOMIS, Longin, inz. CSc.; KLIKA, Rene, hut. inz.

Gauging of calorimeters. Sbor VSB Ostrava 9 no.5:719-728
'63.

1. Higher School of Mining, Ostrava. Submitted March 10,
1963.

KLIKA, Rene, hut. ins.

Instantaneous balances in open-hearth furnaces. Spor
VSB Ostrava 9 no.5:697-708 '63.

1. Higher School of Mining, Ostrava. Submitted May 12, 1963.

to prevent any hot air cooling can be done by either a blower or an
exhaust fan. The former method of air cooling is preferred
since it dries the air prior to admitting it to the cooling coil
of the valve. The water and air cooling at air conditioning
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KLIKA, V.

J. Stransky's Vysokofrekvencni mereni (High-Frequency Measurements); a book review. (Supplement) p. L35. (SLABOPROUDY OBZOR, Vol. 19, No. 6, June 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

PHASE I BOOK EXPLOITATION CZECH/4850

Klika, Vilém, Engineer, State Prize Winner and Stanislav Zedníček, Engineer,
Decorated for Construction Merits.

Vysílače. II. Základy konstrukce (Transmitters. [v.] 2.: Design Principles)
Prague, Státní nakladatelství technické literatury, 1960. 200 p. 1,200 copies
printed.

Reviewer: Vladimír Němeček, Engineer; Tech. Ed.: Marie Králová; Chief Ed.:
František Kašpar, Doctor, Engineer; Resp. Ed.: Ota Karen, Engineer.

PURPOSE: The book is intended as a manual for design and planning engineers of
transmitting equipment and for supervisory engineering personnel in transmission
stations. It can also be used as a manual for students in industrial schools
and schools of higher education.

COVERAGE: This is the second volume of a book dealing with transmitters of which
the first covered theoretical principles. It deals with the structure of the
components of high-power transmitting plants, such as capacitors, induction
coils, and resonant lines. The book presents solutions for assembling separate

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Transmitters (Cont.)

CZECH/4850

components into larger units, discusses designs of the general assembly of large transmitting plants, and investigates problems of designing transmitter buildings. No personalities are mentioned. There are 9 references: 3 Czech (including 1 translation), 3 English, 1 French, and 2 German.

TABLE OF CONTENTS:

Foreword

I. Construction of Capacitors

1. Air capacitors

- 1) Dimensions
- 2) Construction of capacitor plates
- 3) Construction of fixed air capacitors
- 4) Construction of variable air capacitors
- 5) Inductance of air capacitors

2. Liquid dielectric capacitors

- 1) Dimensions and shape of capacitor plates
- 2) Dimensions of capacitor containers and their design

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Z/033/62/023/001/001/007
B291/D303

AUTHOR: Klika, Viléz, Engineer

TITLE: A new TESLA television transmitter with a power of 30 kW for the 1st band.

PERIODICAL: Slaboproudý obzor, v. 23, no. 1, 1962, 17 - 26

TEXT: The article briefly lists the development of television transmitters for the 1st band at the TESLA, National Enterprise, in Bloubětín, and describes in detail the latest transmitter type TESLA I TV 30/FM 10 of the "Střední Čechy" (Central Bohemia) TV station which was put into operation on Cukrák Hill near Zbraslav in November 1961, replacing the former Prague Station on Petřín Hill. The TESLA I TV 30/FM 10 transmitter comprises a picture transmitter with a power of 30 kW in the peak sync pulse, and an FM sound transmitter with an output adjustable from 6 to 10 kW, both transmitters have only air-cooled components and employ only two types of large transmitter tubes, namely the TESLA RE5XN coaxial tetrode with an anode loss of 5 kW, and

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Z/039/62/023/001/001/007
D291/D303

A new TESLA television ...

the newly developed TESLA KD20XL coaxial triode with an anode loss of 20 kW. Modulation is employed in the final stage of the picture transmitter and a very economical cathode-follower circuitry is used with shunt controlled amplifier and novel TESLA 2D1000F triodes of high mutual transconductance and an anode loss of 1 kW. The sound transmitter employs FM with serrasoid circuitry which ensures high sound quality and low distortion. For the first time, a so-called 'filter-plexer' was used where the diplexer is connected with the side-band filter. The author engages now in a detailed description of the picture and sound transmitter circuitry. The RF chain of the picture transmitter is driven by a crystal oscillator (5 Mc/s), followed by multipliers and a 40 W RF amplifier stage, all employing TESLA 6L50 pentodes. The first RF power stage operates in push-pull connection (TESLA RE400F beam tetrodes with an anode loss of 400 W) and has an output of appr. 1 kW; the second push-pull RF power stage (RE5XN power tetrodes) has an output of appr. 6 kW; the third, final RF power stage, also push-pull connection, employs two TESLA

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7/033/62/023/001/001/007
0291/0303

A new TESLA television ...

RD20XL coaxial power triodes which operate as inverse amplifiers with grounded grids. The modulation chain has four basic units, (1) the modulation input amplifier; (2) the two-stage modulator (employing TESLA ED1000F tubes and a TESLA RE400F beam tetrode); (3) the keying amplifier; and (4) the auxiliary equipment, i.e. a compressor amplifier for white-level maintenance. The oscillator, multipliers, the RF amplifiers, and the modulation units are all mounted in withdrawable assemblies and can easily be exchanged. The power sources of the picture transmitter are of simple design, each tube is a-c heated by a separate transformer, and most stages have independent rectifiers. All germanium rectifiers and smoothing filters are mounted in withdrawable units, mercury-vapor rectifiers (TESLA UA5A and UA1A diodes) are of the high-power type, mounted inside the transmitter cabinet and easily accessible. The RF chain of the sound transmitter resembles the RF chain of the picture transmitter, only that it employs a different oscillator, and is one stage shorter. It is based on an FM oscillator, followed by three multiplier stages which raise the carrier frequency to appr. 5 MC/s. The first RF power

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2/039/62/023/001/001/001
0291/0303

A new TESLA television ...

stage employs 2E400P tetrodes, the second, i.e. final RF power stage employs 2E5XN tetrodes. The modulation chain of the sound transmitter comprises only the modulation input amplifier and the correction element which has a timeconstant of 50 μ s. The input level of the modulation signal is 1mW. The modulation amplifier, the FM sinusoid oscillator, and the three multipliers are mounted together in a withdrawable unit. The author describes also the filterplexer, the general layout and design of the transmitter, its accessories, and the antenna system. There are 13 figures. ✓

ASSOCIATION: TESLA Hloubetin, n.p. (TESLA Hloubetin, National Enterprise)

SUBMITTED: October 26, 1961

Card 4/4

40365

S/194/62/000/006/232/232
D256/D308

9,9165

AUTHORS: Tichý, Bedřich, Děčín, Kurt, and Klika, Vilém

TITLE: Method of producing heavy-duty coax-cable

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
no. 6, 1962, abstract 6-8-73 ch (Czechosl. pat., kl.
21 a, 3/05, 21 a⁴, 73, no. 98454, 15.12.61)

TEXT: It is proposed to produce the insulating cord of the heavy-duty radiofrequency cable 25/90 as a hollow sleeve made of polyethylene, 30 to 32 mm outside diameter and 3 mm wall thickness. The sleeve is laid onto the inner conductor tube (20 mm ID) to form a helix with a step of 300 to 400 mm. After inserting the assembly of the inner conductor with the sleeve into the outside conductor tube (100 mm OD), warm water under pressure is circulated through the sleeve. By increasing the pressure of the water the diameter of the sleeve is increased, producing a tight fit to both the inner and the outside conductor tubes; the shape of the sleeve remaining undisturbed by cooling the water. The water is drained and after drying the sleeve, gas under excess pressure is fed provisionally
Card 1/2

Method of producing heavy-duty coax-... S/194/62/000/006/232/232
D256/D308

into it in order to increase the pressure of the insulation layer against the conductors when reeling the cable, and also during the transportation and assembly. The space between the conductors is kept dry by the gas escaping through the walls of the sleeve.
[Abstracter's note: Complete translation.]

KLIKA, Z.; KVECH, F.

"New design of a cutting machine equipped with a saw band for the clothing industry."

p. 455 (Textil) Vol. 12, no. 12, Dec. 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

MATL, 2, 1; MACHYTEKA, M.; ELISONOVA, P.; KLIKAR, J.

Specific pulmonary complications during hospital therapy of primary pulmonary tuberculosis in children. Cesk. pediat. 14 no. 4:335-338 5 Apr 59.

1. Gottwaldova lecebna pro detskou tbo, Kocumberk, red. dr. St. Pohl
Z. M. Kocumberk (p. Inse), III. ploni odd. Gottwaldova detska TBC.
(TUBERCULOSIS, PULMONARY, in inf. & child,
primary complex, specific pulm. compl. during hosp. ther.
(Cz))

KLIKASHEVA, A.M.

Nishneye Ivkino springs. Priroda 52 no.3:78-79 '63. (MIRA 16:4)

1. Kirovskiy gosudarstvennyy pedagogicheskiy institut im.
V.I.Lenina.

(Nishneye Ivkino--Mineral waters)

KLIKASHEVA, M. N.

Sharkov, V. I., Paramonova, G. D. and Klikasheva, M. N., On the mechanism of hydrolysis of cellulose. II. The content of easily hydrolyzed fraction in various preparations of cellulose. P. 1073

SO: j. Applied Chem. (USSR) 21, No. 10 (1948)

The fibrous wood cellulose, the hydrocellulose obtained from it and also the hydrate cellulose in the form of viscose fiber hydrolyze considerably slower after having been dried at 20°C, than the same preparations dried at 90-105°C. Hydrocellulose, dried at 20°C after additional drying at 105° for the removal of the last remains of moisture, retains a lowered reaction ability.

The Kirov Leningrad Forestry Technical
Academy.
October 16, 1947

SANSONOV, O.V.; DMITRENKO, L.V.; SIBOTA, A.G.; GORYUNKOVA, A.D.; MOROZOVA, I.G.;
KLIKH, S.F.; SHESTERIKOVA, M.P.

Purification of albomycin by using chromatographic method on sulfo-
cationites. Antibiotiki 3 no.2:90-94 Mr-Apr '58. (MIRA 12:11)

1. Leningradskiy khimiko-farmatsevticheskiy institut, i Institut
vysokomolekulyarnykh soedineniy AN SSSR.

(ANTIBIOTICS,

albomycin, chromatographic purification with sulfo-
cation exchange resistance (Rus))

(ION EXCHANGE RESINS,

sulfo-cation exchange resin SDV-3, chromatographic
purification of albomycin (Rus))

SAMSONOV, G.V.; YEL'KIN, G.B.; KLICH, S.F.; BAKAYEVA, R.M.; KARPENKO, M.P.

Selective sorption of vitamin B₁₂ in ionites. Med.prom. 14
no.3:3-12 № '60. (MIRA 13:6)

1. Leningradskiy khimiko-farmatsevticheskiy institut.
(CYANOCOBALAMINE) (ION EXCHANGE)

YEL'KIN, G.E.; KLIKH, S.F.; SAMSONOV, G.V.

Frontal chromatographic method of purifying vitamin B₁₂. Zhur. prikl.
khim. 33 no.6:1397-1403 Je '60. (MIRA 13:8)
(Cyanocobalamine)

SAMSONOV, G.V.; KLIKH, S.P.; YEL'KIN, G.E.; KIL'FIN, G.I.

Thermodynamic functions of the sorption of vitamin B₁₂ by the salt
forms of sulfonated resins. Koll. zhur. 27 no.1:101-105 Ja-P '65.
(MIRA 18:3)

1, Leningradskiy khimiko-farmatsevticheskiy institut.

2y176

S/021/61/000/010/002/008
D251/D303

26.2/22

AUTHORS: Pysarenko, H.S., Corresponding Member AS UkrSSR,
Vasylenko, M.V., and Klikh, Yu.O.

TITLE: Coupled bending and torsional vibrations of a turbine
blade during transition across resonance

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR. Dopovidy, no. 10,
1961, 1271 - 1274

TEXT: The authors state that the differential equations for the
problem (ignoring unknown displacements in the direction of great-
est rigidity of the cross-section of the blade) are of the form

$$\left. \begin{aligned} \frac{\partial^2}{\partial z^2} (EI \frac{\partial^2 y}{\partial z^2}) + m \frac{\partial^2 y}{\partial t^2} - m x_c \frac{\partial^2 \theta}{\partial t^2} &= \epsilon [q(z) \cos pt - f_1(z, t)] \\ - \frac{\partial}{\partial z} (GI_d \frac{\partial \theta}{\partial z}) + I_m \frac{\partial^2 \theta}{\partial t^2} - m x_c \frac{\partial^2 y}{\partial t^2} &= \epsilon [-m_z(z) \cos pt + f_2(z, t)] \end{aligned} \right\}, (1)$$

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Coupled bending and torsional ...

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8/021/61/000/010/002/008
D251/D303

where EI , GI_d are the rigidity under bending and torsion respectively, m , I_m are the mass and moment of inertia of the mass of unit length of the blade, x_c is the distance between the centers of gravity and rigidity of the cross-section, $y(z, t)$ is the cross-section, $\theta(z, t)$ the angle of torsion, $q(z)$ the intensity of load on the axis of elasticity, $m_z(z)$ is the intensity of the moment of that load relative to the axis of torsion, p is the frequency of the perturbing force. The first approximation gives the partial solution

$$\left. \begin{aligned} y(z, t) &= Y(z) a \cos(pt + \psi) \\ \theta(z, t) &= \Theta(z) b \cos(pt + \psi) \end{aligned} \right\} \quad (2)$$

where the coefficients of amplitude a and b and the phase angle are functions of time and satisfy

$$\frac{da}{dt} = -\frac{\chi_2(a)}{2\pi M \omega} - \frac{A}{M(\omega + p)} \sin \psi \quad (3)$$

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Coupled bending and torsional ...

$$\frac{d\psi}{dt} = \omega - p - \frac{\chi_1(a)}{2\pi M\omega} - \frac{A}{aM(\omega+p)} \cos \psi, \quad (3)$$

where

$$\begin{aligned} M &= \int_0^l (mY^2 + 2\beta m_x Y\phi + \beta^2 I_m \phi^2) dz \\ A &= \int_0^l (q(z)Y(z) + \beta m_z(z)\phi(z)) dz \\ \chi_1(a) &= \int_0^l \int_0^{2\pi} |f_{10}(z, \tau)Y(z) + \beta f_{20}(z, \tau)\phi(z)| \cos \tau dz d\tau \\ \chi_2(a) &= \int_0^l \int_0^{2\pi} |f_{10}(z, \tau)Y(z) + \beta f_{20}(z, \tau)\phi(z)| \sin \tau dz d\tau \\ \tau &= \theta + \psi \end{aligned} \quad (4)$$

These equations were analyzed by computer and the results for transition across the resonance are given in the form of graphs (Fig.1).
Card 3/4

Coupled bending and torsional ...

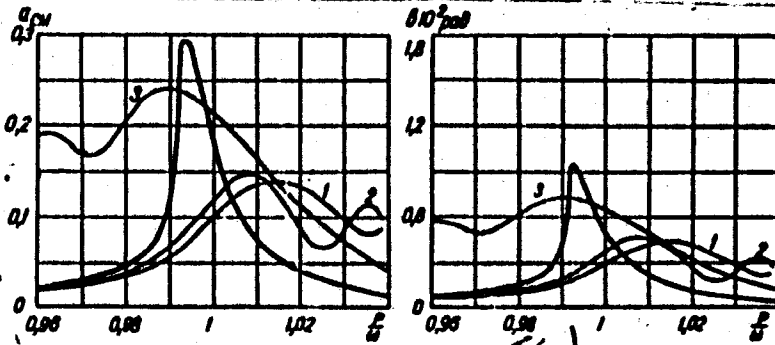
S/021/61/000/010/002/008
D251/D303

The article is concluded with a worked example. There are 2 Soviet-bloc references and 1 figure.

ASSOCIATION: Instytut metalokeramiki i spetsstali AN URSSR (Institute of Metal Powders and Special Alloys AS UkrSSR)

SUBMITTED: May 29, 1961

Fig. 1.



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Fig. 1.

Fig. 1

J

KLIKH, Yu.A. [Klikh, IU.O] (Odessa)

Investigating vibrations of a mechanical system with two degrees of freedom considering energy dissipation in elastic elements. *Prykl. mekh.* 7 no.3:239-252 '61. (MIRA 14:6)

1. Odesskiy politekhnicheskiy institut.
(Vibration)

37900

S/021/62/000/005/002/009
D407/D30110.6300
16.6800AUTHOR: Klikh, Yu.O.

TITLE: Investigating non-stationary oscillatory processes by means of an electronic simulator

PERIODICAL: Akademiya nauk UkrRSR. Dopovidi, no. 5, 1962, 566-571

TEXT: The simulation of the nonlinear system of differential equations f

$$\frac{da}{dt} = F(a, \Psi, t), \quad \frac{d\Psi}{dt} = \Phi(a, \Psi, t) \quad (1)$$

is considered. The study of non-stationary processes by asymptotic methods (Bogolyubov and Mytropols'kyi's one-frequency method) permits obtaining the envelope of the oscillatory process (which is the resonance curve of the amplitudes and phases) by integration of system (1). The latter can be simulated on electronic machines and the possibility of varying the system parameters during the simulation process greatly facilitates the investigation. The simulation of such problems is illustrated by a study of the resonance of bending-Card (13)

Investigating non-stationary ...

S/021/62/000/005/002/009
D407/D301

torsional oscillations of a turbine vane, energy dissipation being taken into account. System (1) is rewritten for this case. The resonance zone, the parameter β (denoting the rate at which the oscillations pass through resonance), the initial conditions and the range of variation of the amplitude are obtained from the resonance curve of the steady-state regime. In order to facilitate the simulation of the system, one writes it in the form:

$$\left\{ \begin{aligned} \frac{da}{dt} &= -\frac{\chi_1(a)}{2\pi M \omega} - \frac{A}{\sqrt{2M}} \frac{1}{\omega + p} \cos\left(\psi - \frac{\pi}{4}\right) - \frac{A}{\sqrt{2M}} \frac{1}{\omega + p} \sin\left(\psi - \frac{\pi}{4}\right), \\ \frac{d\psi}{dt} &= \omega - p - \frac{\chi_2(a)}{2\pi M a \omega} - \frac{1}{a} \left[\frac{A}{\sqrt{2M}} \frac{1}{\omega + p} \cos\left(\psi - \frac{\pi}{4}\right) - \frac{A}{\sqrt{2M}} \frac{1}{\omega + p} \sin\left(\psi - \frac{\pi}{4}\right) \right]. \end{aligned} \right. \quad (6)$$

where a is the amplitude, ψ - the phase shift, ω - the frequency of natural oscillations, p - the perturbation frequency, A, M are constants related to the physical parameters of the mechanical system, and χ_1 and χ_2 are functions related to these parameters. System (6) is replaced by a system of 5 equations and rewritten in machine va-
Card 2/3

Investigating non-stationary ...

S/ 021/62/000/005/002/009
D407/D301

riables (after approximating the nonlinear functions $\frac{1}{a}$, χ_2 and $1/(2\omega - y)$, and selecting the scales for the variables). A block-diagram of the model, used for the solution of the obtained system of equations, is shown. The unknown scale of the variable T is determined by means of the voltage-divider unit. On passing from the voltages to the output variables, it is necessary to take into account their scaling factors. Sample curves, obtained as a result of the simulation, for actual numerical values of turbine-vane parameters, are shown. There are 4 figures. f

ASSOCIATION: Odes'kyy poltekhnichnyy instytut (Odessa Polytechnical Institute)

PRESENTED: by Academician Yu.O. Mytropols'kyi of the AS UkrRSR

SUBMITTED: September 30, 1961

Card 3/3

L 18772-63

EWT(1)/PCC(w)/RDS

APFTC/ASD/IJP(C)

ACCESSION NR: AR3006428

8/0124/63/000/008/A019/A019

SOURCE: RZh. Mekhanika, Abs. 8A111

AUTHOR: Klikh, Yu. A.

TITLE: Nonstationary oscillations of a mechanical system with three degrees of freedom, taking account of energy dissipation in elastic elements

CITED SOURCE: Tr. Kiyevsk. politekhn. in-ta, v. 37, 1962, 105-116

TOPIC TAGS: Vibrating system, energy dissipation, resonance, torsional oscillation, perturbation

TRANSLATION: A non-linear oscillatory system with three degrees of freedom, which moves under the action of a periodic excitation, is considered. The nonlinearity arising in the system is caused by dissipation of energy in elastic elements. It is assumed that this dissipation is small. Periodic solutions of the system are found, which are close to one of the normal oscillations of the unperturbed system. The single frequency method of N. N. Bogolyubov and Yu. A. Mitropol'skiy is used to solve the problem. It is assumed that in the unperturbed system there is no internal resonance. A solution is found in the first approximation for the nonlinear

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L 18772-63

ACCESSION NR: AR3006428

problem, in the case of resonance. Moreover, it is noted that there is no de-
multiplication resonance, which can occur only in higher approximations. An
investigation of the system in the nonresonance case is also conducted. The cal-
culation permits one to investigate the parameters of the system for nonstationary
oscillations. It is shown that the problem of torsional oscillations of a shaft
with rotating masses, where the perturbation is a torque applied at the left end
of the shaft belongs to the type of problem considered. G. B. Plotnikova .

DATE ACQ: 28Aug63

SUB CODE: PH, AP

ENCL: 00

Card 2/2

VASILENKO, N.V. [Vasylenko, M.V.]; KLIKH, Yu.A. [Klikh, I.U.O.]

Mechanical oscillations in a variable temperature field. Dop.
AN URSSR no.5:592-595 '63, (MIRA 17:9)

1. Institut metallokeramiki i spetsial'nykh splavov AN UkrSSR.
Preds'ivleno akademikom AN UkrSSR Yu.A.Mitropol'skim [Mytropol's'kyi,
I.U.O.].

L 10219-63

EWP(q)/EWT(m)/BDG--AFTTC/ASD--JD

ACCESSION NR: AP3000283

S/0021/63/000/005/0592/0595

AUTHOR: Vasylenko [Vasilenko], M. V.; Klich, Yu. O.

55
54

TITLE: Mechanical vibration in a variable-temperature field

f₃

SOURCE: AN UkrSSR. Dopovidi, no. 5, 1963, 592-595

TOPIC TAGS: forced transient vibrations, time-variable temperature, mechanical vibrations, single-degree-of-freedom systems

TEXT: The applicability of the asymptotic methods developed by Yu. N. Mitropol'skiy [Mitropol'skiy], Academician of the Ukrainian Academy of Sciences, to the investigation of transient processes with a small variation of parameters per cycle in nonlinear vibratory systems is shown on a sample analysis of the force vibrations of a system with a single degree of freedom (a cantilever bar with a large mass at the free end) in a time-variable temperature field. Equations of the phase, amplitude, and natural frequencies in the first approximation derived by Mitropol'skiy from a nonlinear

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L 10219-63
ACCESSION NR: AP3000283

differential equation of forced vibrations under a time-dependent temperature are used to calculate the values of these parameters for given numerical data on the system, and to plot a temperature-dependent resonance curve related to the ratio Ω/ρ (Ω = natural frequency of the system; ρ = frequency of the shaking force). The amplitude variation of transient vibrations of the attached mass caused by uniform heating of the bar at rates of 20 and 100C/sec is determined on an electronic analog computer and plotted in the diagram. The article was presented by Academician Yu. O. Mitropol'skiy, AN URSR. Orig. art. has: 2 figures and 10 formulas.

ASSOCIATION: Institut metalokeramiki i spetsialnykh AN URSR (Institute of Powder Metallurgy and Special Alloys AN URSR)

SUBMITTED: 30May62 DATE ACQ: 17Jun63 ENCL: 00
SUB CODE: 00 NO REF SOV: 003 OTHER: 000

rb/K
Card 2/2

KLIKH, Yu.O.; MAKAROV, O.F.

Studying the trajectory of a material point under low attraction
using an electronic modeling machine. Dop. AN URSR no.8:1016-1020
'65. (MIRA 18:8)

1. Odeaskiy politekhnicheskiy institut.

KLEKH, Yu.A. [Klakh, I.U.O.]; AVRAMCHUK, N.A.

Some cases of perturbed motion of a material point in a central field of gravity. Dop. AN URSS no.9:1139-1145 '65.

(MIRA 18:9)

1. Odesskiy politekhnicheskii institut.

L 4437-66

ACC NR: APS021960

UR/0021/55/000/008/1016/1020

AUTHOR: Klikh, Yu. O.; Makarov, O. P.

TITLE: Investigation of the trajectory of a material point with low traction on an analog computer

SOURCE: AN UkrSSR. Dopovidi, no. 8, 1965, 1016-1020

TOPIC TAGS: electric analog, particle motion, approximation method

ABSTRACT: The Krylov-Bogolyubov method is used to obtain the first approximation of the system of equations describing the motion of a material point under the influence of small traction forces of constant magnitude and direction in a central force field. Simulation of the first-approximation equations yields the trajectory of the perturbed motion. The cartesian coordinates of the moving point were fed to the horizontal and vertical input of a cathode ray oscilloscope (I-5M) on whose screen the trajectory was observed and photographed for two values of the traction. Orig. art. has: 7 formulas and 4 figures. This report was presented by Yu. A. Mitropol'skiy (Yu. O. Mitropol'skiy).

ASSOCIATION: Odes'kiy politekhnichnyy instytut [Odeskiy politekhnicheskiy institut] (Odessa Polytechnic Institute)

Cord 1/2

L 6437-66

ACC NR: AP5021960

SUBMITTED: 16Jun64

ENCL: 00

SUB CODE: ME, MA

NR REF SOV: 001

OTHER: 001

Card 2/2



L 2106-66 EWT(1)/EWP(m)/PS(v)-3/EJA(d) GW

ACCESSION NR: AP5024779

UR/0021/65/000/009/1139/1145

AUTHOR: Klich, Yu. O. (Klich, Yu. A.); Avramchuk, N. A.

39
37
B

TITLE: Certain cases of the perturbed motion of a mass point in a central gravitational field

SOURCE: AN UkrRSR. Dopovidi, no. 9, 1965, 1139-1145

TOPIC TAGS: spacecraft motion, spacecraft trajectory, asymptotic method, nonlinear mechanics

ABSTRACT: The Krylov-Bogolyubov method is applied to solving the problem of motion of a flight vehicle with a small constant thrust in a central gravitational field. The flight vehicle is considered as a point whose mass m varies linearly. The equations of motion are transformed to a form with a small parameter ϵ ($\epsilon = \dot{m}/m_0$, where m_0 is the initial mass of m and \dot{m} is the rate of expenditure of the mass) multiplying the nonlinear terms. This form of the equations makes it possible to apply asymptotic methods of nonlinear mechanics to the solution of the problem. By applying the averaging method, equations of the first approximation are derived which are valid for any direction of the thrust force. The equations of the first approximation are integrated and the trajectories of motion are determined for the

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L 2106-66

ACCESSION NR: AP502h779

following two particular cases: a) radial thrust, and b) constant direction thrust. Orig. art. has: 1 figure and 23 formulas.

2

[LK]

ASSOCIATION: Odes'kyy politekhnichnyy instytut (Odessa Polytechnic Institute)

SUBMITTED: 26Sep64

ENCL: 00

SUB CODE: SV, NE

NO REF SOV: 002

OTHER: 00h

ATD PRESS: 4113

Card 2/2

FORM 100-10
ACC NR: AP6011364

SOURCE CODE: UR/0208/66/006/002/0386/0369

AUTHOR: Klikh, Yu. A. (Odessa); Makarov, O. F. (Odessa); Plotnikov, V. A. (Odessa)

ORG: none

H8
B

TITLE: The use of an analog computer to calculate the initial conditions for a system in an optimal motion control problem *q*

SOURCE: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 8, no. 2, 1966, 386-389

TOPIC TAGS: optimal control, optimal automatic control, time optimal control, control theory, motion equation, analog computer, computer application, computer simulation

ABSTRACT: The authors describe analog computer simulation of a simple motion equation with the objective of finding the optimum control parameters of a system. The work was designed to prove the feasibility of using analog computers in the solution of optimization problems of this type. Consider the motion of a point *w* (figure 1) in a force field. The point is acted upon by the field and by a constant magnitude pulling force. The equation of motion may be written as

$$\ddot{r} = -\frac{1}{r^2} + a$$

UDC: 518.51:62-50

Card 1/3

L 05697-67

ACC NR: AP6011964

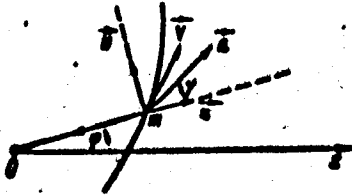


Fig. 1.

or in the radial and transverse projections as

$$\dot{r} = u, \quad \dot{\phi} = \frac{v}{r}, \quad \ddot{r} = \frac{u^2}{r} - \frac{1}{r^3} + a \cos \gamma, \quad \ddot{\phi} = -\frac{uv}{r^2} + a \sin \gamma. \quad (1)$$

where r is the polar radius of the point, ϕ is the polar angle, a is the pulling force modulus, u and v are radial and transverse velocity components and γ is the angle formed by the direction of the pulling force and the polar radius. The problem is to find an optimum control $\gamma = \gamma(t)$ which will transfer the point w in a minimum of time from the position

$$r_0, \phi_0, u_0, v_0 \quad \text{where} \quad t = 0$$

into position

$$r_1, \phi_1, u_1, v_1 \quad \text{where} \quad t = t_1.$$

Applying Pontryagin's maximum principle, this problem can be reduced to the solution

L 05697-67

ACC NR: AP6011864

of a two-point boundary problem. Since the system (1) is unstable in this particular case, to ensure the stability of the system simulated on the analog computer, the original system (1) is transformed by substitution of

$$p = \frac{1}{r}, \quad s = \frac{dp}{dp}, \quad u = \frac{1}{r^2}$$

into

$$p' = z, \quad s' = u - p \frac{u \cos \gamma}{\rho^2} - \frac{u \sin \gamma}{\rho^2}, \quad u' = -2 \frac{u \sin \gamma}{\rho^2}$$

Hence the problem amounts to finding of optimal control, which transfers the point w from the position (ρ_0, s_0, u_0) where $\varphi = 0$

for $\varphi = 0$ into position (ρ_1, s_1, u_1) where $\varphi = \varphi_1$

and the minimizing functional

$$I = \int_0^1 \frac{\gamma^2}{\rho^2} dt$$

The authors set up the necessary equations and provide a block diagram for system simulation on an analog computer. The feasibility of solving problems of this type on an analog computer is proven and an example is included. Orig. art. has: 10 formulas, 3 figures.

SUB CODE: 09/13 / SUBM DATE: 29Mar65

Card 3/3

L 07572-67 EWP(m)/EWP(w)/EWP(v)/EWP(k) IJP(o) WW/EM

ACC NR: AT6029366

SOURCE CODE: UR/0000/66/000/000/0077/0084

AUTHOR: Klikh, Yu. A. (Odessa); Vasilenko, N. V. (Kiev)

ORG: none

TITLE: Unsteady state processes in the zone of basic and parametric resonances

SOURCE: AN UkrSSR. Institut problem materialovedeniya. Rasseyaniye energii pri kolebaniyakh uprugikh sistem (Energy dissipation during vibrations of elastic systems). Kiev, Naukova dumka, 1966, 77-84

TOPIC TAGS: energy conversion, vibration analysis

ABSTRACT: The article considers the effect of pulsating axial forces on the bending vibrations of a rod (turbine blade). The treatment takes into account the dissipation of energy in the material of the rod. In this case, the equations for the bending vibrations can be written in the form:

$$\frac{\partial^2}{\partial x^2} \left(EJ \frac{\partial^2 y}{\partial x^2} \right) + m \frac{\partial^2 y}{\partial t^2} - \varepsilon (P_1 + P_2 \cos \omega t) \frac{\partial^2 y}{\partial x^2} - \varepsilon \frac{\partial^2}{\partial x^2} \left[EJ_1 (a_1 + a_2 r^2) \left(\frac{\partial^2 y}{\partial x^2} \right)^2 \right] = \varepsilon q \cos pt. \quad (1)$$

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L 07572-67

ACC NR: AT6029366

Here $y(z,t)$ is the deflection of the rod; EJ is the bending rigidity of the rod; m is the mass of a unit length of the rod; q is the intensity of the load along the axis of the rod; p is the frequency of the disturbing forces $\sum q \cos pt$; $\sum (P_1 + P_2 \cos \tau t)$ is a pulsating axial force with a frequency p ; the last term on the left hand side of the equation reflects elastic and hysteresis deviation from Hooke's Law with bending vibrations; ϵ is a small positive parameter. The mathematical solution of the equation is sought in the form of an asymptotic series. Orig. art. has: 12 formulas and 3 figures.

SUB CODE: 20/¹⁰ SUBM DATE: 22Feb66/ ORIG REF: 003

2/2

KLIKICH, S.

Mechanization of production processes and the increase of labor
productivity in the meat industry of Moldavia. Izv. AN Mold. SSR
no.12:58-70 '63. (MIRA 18:5)

KLIKIRKA, J., AND OTHERS

"Zinc selenide. I. Spectral transparency of thin films; luminescence."

CHEMICKÉ LISTY, Praha, Czechoslovakia, Vol. 52, no. 10, Oct. 1958

Monthly list of East Europe Accessions (EEAI), IC, Vol. 8, no. 6, Sept. 1959,

Unclass.

Kliko - V. R.

15-57-8-11802

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 8,
p 266 (USSR)

AUTHORS: Brichkin, A. V., Kliko, V. R., Nikiforov, I. M.

TITLE: Removal of Blocks and Isolation of Mined Areas in
Mining Slightly Inclined Deposits of Great Thickness
and Extent (K voprosu vyyemki tselikov i pogasheniya
pustot pri razrabotke pologopadayushchikh zalezhey
bol'shoy moshchnosti i protyazhennosti)

PERIODICAL: Sb. nauchn. tr. Kazakhsk. gorno-metallurg. in-t, 1956,
Nr 14, pp 295-324

ABSTRACT: Losses of ore in the form of unmined blocks, lying
between chambers and between levels in mining of thick
ore deposits by a chamber-column system, amount to 10
to 25 percent. Problems of the methods for removal of
these blocks are considered, using the Mirgalimsay
mine. The authors present a survey of the present

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15-57-8-11802
Removal of Blocks and Isolation of Mined Areas (Cont.)

methods of determining the sizes of chambers and of the blocks between the chambers and between the levels. The following possible methods of removal of blocks between chambers are set forth from field work in the indicated mine: 1) A winze 4 sq m in cross section is cut in the rock below the level, along the axis of the mined-out chambers. Cross cuts 3.6 sq m in cross section are excavated at each block. These run at an angle to the winze. Funnels, the upper cross section of which is somewhat greater than the base of the given block, are made in the cross cut under each block. Simultaneously with the blasting which produces the funnels, rock is blasted at the base of the block. The block is collapsed under pressure of the overlying rock and its own weight, and also as a result of the blasting operations; the ore falls into the funnel, from which it is removed to the working level by means of a scraper. Here it is loaded onto cars. An inadequacy of this method is the partial impoverishment of the ore during its passage through the funnels. 2) A second method is to run a 4 sq m winze in the rock below the level, parallel

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15-57-8-11802

Removal of Blocks and Isolation of Mined Areas (Cont.)

to the roof of the chamber, along the axis of the blocks between the chambers. Horizontal cross cuts 2 m long and with a section of 3.6 sq m are excavated from the winze to each block; funnels are produced from the cross cuts near the block. The block is broken up by blasting of charges in the blast holes or deep holes bored in mining operations. The location of the blast holes is calculated so as to cause the ore to collapse into the funnels. 3) A third method differs from the foregoing in that the funnels are located between the blocks. Methods of removal of the blocks by blasting, with collapse of the rock on the hauling drift, as well as possible variations of working the blocks between the levels by breaking down the ore with deep bore holes or blast holes, are also described. Since the area and the volume of the mined deposit are greatly increased by removal of the blocks, the problem of the methods for isolating the mined area from the working sectors is considered. The authors arrive at the following conclusions: 1) partial removal of the blocks is safest in field operations, that is, operations
Card 3/4

15-57-8-11802

Removal of Blocks and Isolation of Mined Areas (Cont.)

conducted along the rock body, or where directional blasting of the ore is possible; 2) removal of the blocks after erection of artificial supports (rock walls, stone or concrete columns, etc.) is possible where the deposit is more than 6 m thick and the ore is valuable; 3) removal of the blocks between the chambers with use of temporary supports and with artificial collapsing of the roof is possible in weak rock where the deposit is up to 3 m to 4 m thick.

Card 4/4

A. G. Teplitskiy