YEFIMOV, Igor' Petrovich; DUKHANIN, Serafim Sergeyevich; BELEN'KIY, Veniamin Il'ich; KAMINSKIY, M.L., otv.red.; ASTAKHOV, A.V., red.izd-va; SHKLYAR, S.Ya., tekhn.red.

[Operator of hydraulic equipment in opencut and underground operations] Mashinist gidroustanovok na otkrytykh i podzemnykh rabotakh. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 298 p. (MIRA 13:3)
(Hydraulic mining—Equipment and supplies)

NAFTULIN, M.E.; SHVETS, Yu.A.; UDOVENKO, K.A.; DZHANUTSTSO, K.A.; IVASHCHENKO, P.M.; BELEN'KIY, V.I.; BYCHENKO, N.A.

Coloring filmlike layers of asbestos-cement sheet products. Stroi. mat. 6 no.5:24-25 My '60. (MIRA 13:7)
(Asbestos cement)
(Coloring matter)

REBROV, A.S., inzh. [deceased]; USPENSKIY, V.P., inzh.; PLESHKOV, D.I., kand. tekhn. nauk; BELEN'KIY, V.I., inzh.; BERNADSKIY, G.I., inzh.; VALUTSKIY, I.I., inzh.; BAZANOV, A.F., kand. tekhn. nauk; KOGAN, I.Ya., kand. tekhn. nauk; RATNER, A.I.; VOROB'YEV, A.A., inzh.; BAUMAN, V.A., kand. tekhn. nauk; NOSENKO, N.Ye., kand. tekhn. nauk; FOKIN, M.V., inzh. [deceased]; VINOGRADOV, G.V., inzh.; GUSAKOV, M.A., inzh.; SUDAKOVICH, D.I., inzh.; Prinimali uchastiye: SIGAL',Ya.Ye., inzh.; TITOV, M.A., inzh.; OGIYEVICH, V.Ya., kand. tekhn. nauk; ZIMIN, P.A., kand. tekhn. nauk, retsenzent; LAPIR, F.A., inzh., retsenzent; PETROV, N.M., kand. tekhn. nauk, retsenzent; RYAKHIN, V.A., kand. tekhn. nauk, retsenzent; KHOLIN, N.A., inzh., retsenzent

[Construction machinery; a reference manual] Stroitel'nye mashiny; spravochnik. Izd.3., perer. i dop. Moskva, Mashinostroenie, 1965. 788 p. (MIRA 18:6)

ABDUZHAMILOV, Sh.; BELEN'KIY, V.M.; CHERNOVA, L.P.; CHERNOV, G.M.

Angular distribution of shower particles in collisions of 24 Bev. protons with nucleons and nuclei of a photoemulsion. Izv. AN Uz. SSR. Ser. fiz.-mat. nauk 9 no.1:98-104 '65. (MIRA 18:6)

1. Institut yadernoy fiziki AN UzSSR.

AUTHOR: Lutoshkin, G.S. and Belen'kiy, V.N. Sov/93-58-4-12/19

TITLE: Study of the Gas-Oil Mixture Flow in Casing Strings (Issledovaniye dvizheniya gazozhidkostnykh smesey po zatrubnomu prostranstvu)

PERIODICAL: Neftyanoye khozyaystvo, 1958, Nr 4, pp 53-58 (USSR)

ABSTRACT: This 1955 study of pressure loss in multiple casing string completions was carried out by the VNII Institute on a laboratory model (Fig.1). The pressure balance is expressed by the formula $R_1 - R_2 = R_{sm} + R_{tr} + R_{iner}$, where R_1 = pressure at the bottom zone of flow, R_2 = pressure at the top zone of flow, R_{sm} = pressure of the gas-oil mixture column, R_{tr} = pressure loss due to friction between the gas-oil mixture flow, the wells of the tubing, and the couplings. This formula takes into account the static pressure which, according to A.A. Armand , does not exceed 2 percent of the pressure loss due to friction. Pressure loss due to friction caused by the oil-gas mixture flow through the casing-tubing annulus is presented by the formula $h_{tr} = KV_q + b$, where h_{tr} = pressure loss due to friction per meter of oil-gas lift, q and V = volume input of fluid and air, K = coefficient of the angle depending on the inner and outer diameters of the annulus, and b = value of the

Card 1/2

ordinate corresponding to pressure loss due to friction caused by a single-phase flow through the casing-tubing annulus. The data included in this formula are reflected in Fig. 2 and Table 1. The pressure of the gas-oil column is determined by the formula $R_{sm} = \frac{\gamma_{sm} l}{10}$, where l = the length of the engaged gas-oil lift, and γ_{sm} = the specific gravity of the gas-oil mixture. The data included in this formula are reflected in Figs. 3 and 4. Table 2 shows that the pressure drop at the joints of easing strings with 2 1/2" eduction tubes is very high when the air input is high. This condition results in valuable pressure loss for free-flowing wells equipped with 4" casing and 2 1/2" eduction tubes. This study developed empirical formulas for the determination of pressure loss due to friction and for the determination of the specific weight of the gas-oil mixture flowing through the annulus of a dual casing string. It is suggested that these formulas be used instead of manometers for determining the pressure in casing strings. There are 4 figures and 2 tables.

Card 2/2

1. Fluid flow--Analysis 2. Pipes--Hydrodynamic properties 3. Mathematics
4. Pressure--Determination

SOV/19-58-6-35/685

AUTHORS: Virnovskiy, A.S.; Belen'kiy, V.N.; Krutikov, B.S.; Borisov, M.D.; Perlovich, M.I. and Kornev, B.P.

TITLE: A Method of Simultaneous Exploitation of Two Gusher Layers With One Well (Sposob odnovremennoy ekspluatatsii dvukh fontannykh plastov odnoy skvazhinoy)

PERIODICAL: Byulleten' izobreteniy, 1958, Nr 6, p 12 (USSR)

ABSTRACT: Class 5a, 41. Nr 113629 (575268/2858 of 6 April 1955). Submitted to the Ministry of Petroleum Industry of USSR. To simplify design and make possible the mechanical cleaning of paraffin from gusher pipes, the liquid from both layers is lifted by one gusher pipe string, and each layer is

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SOV/19-58-6-35/685

A Method of Simultaneous Exploitation of Two Gusher Layers With One Well

separately controlled by separate exchangeable depth pipes.

Card 2/2

ADONIN, A.N., kand.tekhn.nauk; ALIVERDIZADE, K.S., kand.tekhn.nauk; AMIYAN, V.A., kand.tekhn.nauk; ANISIMOV, Ye.P., inzh.; APRESOV, K.A., dotsent; BELEN'KIY, V.N., inzh.; BOGDANOV, A.A., kand. tekhn.nauk; GORBENKO, L.A., inzh.; DANIELYAN, A.A., inzh.; DAKHNOV, V.N., prof.; IVANKOV, R.A., inzh.; KORNEYEV, M.I., inzh.; LAVRUSHKO, P.N., inzh.; LESIK, N.P., inzh.; LOVLYA, S.A., kand. tekhn.nauk; LOGINOV, B.G., kand.tekhn.nauk; MININZON, G.M., kand. tekhn.nauk; MOLCHANOV, G.V., kand.tekhn.nauk; MURAV'YEV, I.M., prof.; MUSHIN, A.Z., inzh.; OL'SHVANG, D.Ye., inzh.; PODGORNOV, M.I., inzh.; FAYERMAN, I.L., kand.tekhn.nauk; FOKINA, Ye.D., inzh.; EFISHEV, A.M., inzh. [deceased]; YERSHOV, P.R., vedushchiy red.; MUKHINA, E.A., tekhn.red.

[Reference book on petroleum production] Spravochnik po dobyche nefti. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry. Vol.2. 1959. 589 p. (MIRA 13:2)
(Oil fields--Production methods)

BELEN'KIY, V.N.

Development of oil fields using the method of the simultaneous separate development of two beds in one well. Neft. khoz. 43 no.1:29-35 Ja '65. (MIRA 18:3)

BELENKIY, V.Ye.

Effect of muscle tension on the nature of load distribution in the cervicodiaphyseal angle of the femoral bone. Ortop.travm. i protez. 21 no.2:21-27 F '60. (MIRA 13:12)
(FEMUR)

BELEN'KIY, V.Ye.

Modern methods for studying the elastic properties of bone tissues. Ortop., travm. i protez. 22 no.4:35-38 Ap '61.
(MIRA 14:11)

1. Iz TSentral'nogo nauchno-issledovatel'skogo instituta protezirovaniya i protezostroyeniya (dir. - zasluzh. deyatel' nauki prof. B.P. Popov).
(BONE)

BELEN'KIY, V.Ye., mladshiy nauchnyy sotrudnik (Moskva I-51, Seminarskiy tupik, d.10, kv.5)

Experimental data on the role of the spongiosa in femoral neck fractures. Ortop., travm. i protez. 25 no.8:11-15 Ag '64. (MIRA 18:4)

1. Iz TSentral'nogo instituta protezirovaniya i protezostroyeniya (dir. - zasluzhennyy deyatel' nauki prof. B.P.Popov).

BELEN'KIY, YA.

Accounting

New approach to bookkeeping accounts and balances. Vest. stat., No. 6, 1951.

Monthly List of Russian Accessions, Library of Congress, March 1952. Unclassified.

BELENKIY, Yakov Grigor'yevich; GORZHEVSKIY, Grigoriy Yakovlevich; KIRBANOV, Bentsion Davidovich; KADYKOV, N.I., redaktor; VALOV, N.A., redaktor izdatel'stva; ATTOPOVICH, M.K., tekhnicheskiy redaktor

[Manual of metal products for industrial purposes] Spravochnik na metalloizdeliia promyshlennogo naznacheniia. Sostavlen po Gosudarstvennym standartam i tekhnicheskim usloviiam. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1957. 594 p.
(Cables) (Tools) (Belts and nuts) (MIRA 10:9)

BUKSHTEYN, Mikhail Abramovich; BELEN'KIY, Yakov Grigor'yevich; MANAKIN, N.V., red.; LEVIT, Ye.I., red. izd-va; ISLANT'YEVA, P.G., tekhn. red.

[Manual for a worker in the manufacture of wire rope and hardware products] Kanatchik-metiznik; spravochnik dlia rabochikh. Moskva, Metallurgizdat, 1963. 230 p. (MIRA 16:7)

(Wire rope industry—Handbooks, manuals, etc.)

SBITNEV, Andrey Stepanovich; BELEN'KIY, Yakov Grigor'yevich; BASS, Aleksandr Izrailevich; OZERETSKAYA, A.L., red.izd-va; ISLENT'YEVA, P.G., tekhn. red.

[Wire mesh and belts] Provolochnye setki i lenty. Izd.2., dipr. i dop. Moskva, Metallurgizdat, 1963. 227 p. (MIRA 16:6)

(Wire netting)

BELEN'KIY, Ya. G.

PHASE I BOOK EXPLOITATION SOV/3474

Sbitnev, Andrey Stepanovich, and Yakov Grigor'yevich Belen'kiy

Provolochnyye setki i lenty (Wire Screens and Belts) Moscow, Metallurgizdat, 1960. 171 p. 2,150 copies printed.

Ed.: A.I. Bass; Ed. of Publishing House: L.M. Gordon; Tech. Ed.: V.V. Mikhaylova.

PURPOSE: This book is intended for technical personnel of metallurgical and metal products plants. It may also be useful to students specializing in consumer goods production at metallurgical tekhnikums and schools of higher education.

COVERAGE: The authors present a classification of wire screens and mesh-belts for conveyers. They describe basic structural characteristics of wire screens and their manufacture from ferrous metals; they also provide suggestions for use of screens for various purposes. Machinery, equipment, devices, and tools which are used for manufacturing wire screens are given particular attention in the book. No personalities are mentioned. There are no references.

Card 1/5

TABLE OF CONTENTS:

Wire Screens and Belts SOV/3474

AVAILABLE: Library of Congress

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VK/WBC/mas
7-7-60

BELEN'KIY, Ya.G.

Important potential for economizing metal. Metallurg 10 no.2: 29-30 F '65. (MIRA 18:3)

1. Gosplan RSFSR.

BELEN'KIY, YA. M., Eng., MOROZOV, F. I., Eng., KURKCHI, I. O., Archt.

Reinforced Concrete Construction

Moscow plants for large-scale reinforced concrete products. Biul.stroi. tekh. 9 no. 15, 1952.

Monthly List of Russian Accessions, Library of Congress November 1952. Unclassified.

BELEN'KIY, YA. YE

Category : USSR/Radiophysics - Generation and conversion of radio-frequency oscillations I-4

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 1831

Author : Belen'kiy, Ya.Ye., Svenson, A.N.
Title : Multiphase Multivibrator

Orig Pub : Radiotekhnika, 1956, 11, No 7, 39-45

Abstract : Analysis of a new multiphase multivibrator circuit, requiring half as many tubes and parts as existing circuits. The operation of the multivibrator is described and the fundamental elements for a quantitative design of circuits of this type are cited.

Card : 1/1

Belen'kiy, Ya. Ye.

BELEN'KIY, Ya.Ye.; SVENSON, A.N.

Synchronizing multichannel system switches without a marker impulse. (MIRA 10:12)
Elektrosviaz' 11 no.12:17-21 D '57.
(Telecommunication)

BELEN'KIY, Ya. Ye., Cand Tech Sci -- (diss) "Circuit ~~Diagramatic~~ electron commutators of multichannel telemetering systems." L'vov, 1958, 19 pp (Min of Higher Education UkSSR. L'vov Polytechnic Inst) 100 copies. Bibliography at end of text (15 titles) (KL, 27-58, 107)

BELEN'KIY, Ya.Ye.; SVENSON, A.N.

Design of nonsymmetrical polyphase multivibrators. Avtom.kont.i izm.tekh. no.2:92-98 '58. (MIRA 11:7)
(Vibrators) (Pulse techniques (Electronic))

108-13-3-7/13

AUTHORS: Belen'kiy, Ya., Ye., Svenson, A. N.

TITLE: Pulse-Series Operation of a Multiphase-Multivibrator (Seriynyy rezhim mnogofaznogo mul'tivibratora)

PERIODICAL: Radiotekhnika, 1958, Vol. 13, Nr 3, pp. 61 - 65 (USSR)

ABSTRACT: In the Laboratory for Remote Control IMA AS Ukrainian SSR the operation mode of a multivibrator was arranged and investigated where each relaxation element of the multivibrator did not generate one single pulse but a group (series) of pulses. Different from the usual mode of operation this was called a pulse-series operation. On certain conditions this operation can be obtained by means of a standard circuit, namely by gradually decreasing the resistance of cathode bias R_c. With a decrease of R_c the multivibrator changes over by steps from the usual operation to that of generating a series of 2 pulses, then 3, etc. This proceeds until the number of pulses in the series reaches the optimum possible value. A further decrease of R_c causes a transition by steps to a mode of operation analogous to that of a multiphase RC-generator (Ref 2), when the number

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Pulse-Series Operation of a Multiphase-Multivibrator

of cascades is odd, and to a mode of operation corresponding to that of an ordinary multivibrator when the number of cascades is even. The operation of the multivibrator is described and the basic computations and formulae for pulse--series operation are given. From the deduced formula (14) can be seen that the multivibrator valves must have great amplification, small resistance, small plate current and great trip voltage in order to obtain a great number of pulses in the series. These demands are contradictory to each other. Therefore it is better to take valves with medium parameters. There are 5 figures and 2 references, 2 of which are Soviet.

SUBMITTED: December 17, 1956

Card 2/2

BELEN'KIY, Ya.Ya.; MIKHAYLOVSKIY, V.N.; SVENSON, A.N.

Multichannal telemetric device for complex geophysical investigations of wells. Geol.nefti i gaza 3 no.1:52-55 Ja '59.
(MIRA 12:4)

(Prospecting--Geophysical methods)
(Remote control)

BELEN'KIY, Ya.Ye.

Multichannel pulse-width modulator withvariable cadence. Avtom. kont.i izm.tekh. no.4:133-139 '60. (MIRA 13:8)
(Modulation (Electronics))
(Pulse techniques (Electronics))

10.8100

31819
S/194/61/000/010/010/082
D256/D301

AUTHORS: Belen'kiy, Ya.Ye., Vaynshteyn, V.S. and Kondratenkov, I.V.

TITLE: Measuring dynamic deformations with synchronously supplied sensors

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 10, 1961, 24, abstract 10 A193 (Avtomat. kontrol' i izmerit. tekhn., no. 4, Kiev, AN USSR, 1960, 163-168)

TEXT: Theoretical principles are presented of a method of supplying the wire stress-sensors with a frequency equal to the basic frequency of the exciting force, the change in the measured deformation being obtained without additional conversions in a form of a low-frequency signal. The vibrator employed to excite oscillations in the tested sample with the attached sensors is used at the same time to synchronize a vacuum-tube generator supplying the mea-

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Measuring dynamic deformations...

suring bridge with a voltage of a constant amplitude in phase with the basic harmonic of the exciting force. From the bridge the voltage is fed to a low-frequency filter and then measured with an automatic potentiometer or a photo-recording device. 3 figures. 5 references. [Abstracter's note: Complete translation]

S/194/61/000/006/015/077
D201/D302

16.8000

AUTHOR: Belen'kiy, Ya.Ye.

TITLE: Analysis of transient response of a multi-phase multivibrator

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1961, 2, abstract 6 V14 (V sb. Vses. Mezhvuz. konferentsiya po teorii i metodam rascheta nelineyn elektr. tsepey, no. 4, Tashkent, 1960, 30-46)

TEXT: The origination, existence and stability of periodic oscillations in the circuit of a multi-phase multivibrator (ring counter) generating one pulse per working period are considered. The analysis is performed using the qualitative theory of differential equations. The ring counters exhibit the properties of constant action distributors and are used in multi-channel remote measuring, control and command systems as commutators for time division of channels. 3 references. [Abstracter's note: Complete translation]

VB

Card 1/1

SHRAMKOV, A.Ya.; BELEN'KIY, Ya.Ye.

Calculation of instrument networks with semiconductor rectifiers using dynamic half-wave characteristics. Nauch. zap. LPI no.1: 80-92 '61. (MIRA 16:6)

(Electric measurements)

9.4300
9.2560

2484 S/103/61/022/008/013/015
D274/D302

AUTHORS: Belen'kiy, Ya.Ye. and Mikhaylovskiy, V.N. (L'vov)

TITLE: Fast multi-channel transistor-distributor

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 8, 1961, 1117-1122

TEXT: The use of multi-phase multivibrators as distributors is advantageous both technically and economically. The operation is considered of a multi-phase self-triggering multivibrator, incorporating p-n-p transistors (Fig. 1). The distributor can be used as a commutator in multi-channel telemetering systems (in both reception and transmission); in master coders; as start-stopper; in digital- and pulse-code systems of remote control, and in general in pulse devices which require a pulse-sequence which is time-shifted. A comparison shows that multi-phase multivibrators are more stable than ordinary bi-stable multivibrators, by a factor of 2-3 approximately. Ya.S. Itskhoki (Ref. 5: Impul'snyye ustroystva (Pulse Devices) Izd-vo Sov-etskoye radio, 1959). The steady-state

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Fast multi-channel... 24844

process of the multivibrator is described. The multivibrator can have many cascades. An initial positive pulse, applied to the base of the first transistor, closes it and opens the next transistor in the circuit: a series of pulses is generated the number of which equals the number of cascades. After the generation of the last pulse, the voltage at the base drops to zero, the first transistor is opened and the circuit becomes stable. The mathematical analysis of the operation of the distributor is based on a linear approximation of the open-triode characteristic, whereby the transistor scheme reduces to the tube scheme. The duration of the generated pulses, with the condition $r_k \ll r_\sigma$, is given by

$$T = \tau \frac{k^2 a_2 (1 + a_1) + k\left[a_1 + a_2 (e - 1)\right] - 1}{k^2 a_2 + k a_2 (e - 2)} \qquad (3)$$

where

$$\tau = r_{bc}, k = \frac{\mu_T}{1 + \frac{R_{iT} + r_e}{r_k}}, \quad a_1 = e^{-\frac{1}{1+\lambda}} \quad a_2 = e^{-\frac{2}{1+\lambda}}$$

λ is found by experiment; it varies between 0.2 - 0.5; μ_T is the

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amplification factor, and R_{it} - the inner resistance of the equivalent circuit. The formula shows that by varying the parameters of the RC-circuit it is possible to alter the duration of the pulses; hence it is possible to obtain a non-symmetric multi-phase multivibrator with pulses of pre-assigned duration. The multivibrator can be readily synchronized by marker pulses in the non-triggered state and by sinusoidal and pulse voltages in the triggered state. The synchronizing voltage U_c is applied to the common emitter circuit (see Fig. 1); this makes it possible to fix the duration of each pulse by means of the external voltage. In the multiphase multivibrator, the pulses are of more stable duration (as compared to ordinary multivibrators); this is due to a larger angle between the control voltages. With regard to temperature stability; taking optimum parameters of the multivibraton, the error in pulse duration is of the order of 10% for a temperature range of +15 to +55°C. Such temperature stability is not always satisfactory in practice; therefore a method is described which improves it by stabilizing the frequency of the multivibrator by introducing a selective circuit into the common emitter circuit. There are 3 figures. 1 table

24844

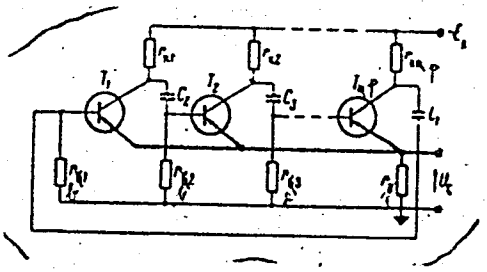
S/103/61/022/008/013/015
D274/D302

Fast multi-channel...

and 9 Soviet-bloc references.

SUBMITTED: July 21, 1960

Fig. 1
Diagram of multivibrator



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BELEN'KIY, Ya.Ye.

Some conditions for the existence of a count theorem for transformations with real nucleus. Vop. pered. inform. 1:32-34 '62.
(MIRA 16:6)

(Information theory)

BELEN'KIY, Ya.Ye.

Calculation of the parameters of registers for recording pulse-modulated signals. Vop. pered. inform. 1:159-168 '62. (MIRA 16:6)
(Information theory) (Telemetering)

BELEN'KIY, Ya.Ye.

Synchronization of multiphase multivibrators using a gate pulse voltage. Vop. pered. inform. 2:134-141 '63. (MIRA 16:12)

L 10368-63

ACCESSION NR: AP3001128 S/0108/63/018/006/0051/0055

AUTHOR: Belen'kiy, Ya. Ye.; Olesin, V. R. 44

TITLE: Temperature stabilization of transistorized multiphase multivibrators

SOURCE: Radiotekhnika, v. 18, no. 6, 1963, 51-55

TOPIC TAGS: temperature compensation, transistor multivibrators

ABSTRACT: The problems of stability and increased temperature range of transistorized multiphase multivibrators were investigated. The multivibrator shown in Fig. 1 of Enclosure was analyzed. Collector current Ic was stabilized against temperature variations by the introduction of a potentiometer circuit. When a pulse is generated by the first transistor T, the other transistors are blocked by a positive voltage existing across emitter resistor Re due to the emitter current. At the moment of triggering, two transistors open, and the relationships obtained for the moment of generation are also correct for the moment of turnover. By utilizing the relationships between voltages and currents of the circuit elements and transistors, a system of equations for currents was

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ACCESSION NR: AP3001128

derived. The solution of the system for the collector current Ic shows that parameters depending on temperature are collector in reverse collector current IcO, base emitter voltage, and current gain. To determine the relationship between Ic and IcO, the concept of the instability coefficient S was introduced. The latter represents a function of circuit parameter p, which is completely defined by multivibrator circuit elements. S(p) is a monotonically decreasing function and when p increases, S decreases, thus improving the thermal characteristics of the multiphase multivibrator. The experiments were conducted with P15 germanium transistors and P101 silicon transistors. Frequency instability of germanium transistors did not exceed 2% for each 10C, while the temperature range of the multivibrator rose as high as 80C. In the circuit with silicon transistors, the frequency instability did not exceed 1.5% for each 10C, and temperature ranges rose as high as 120C. Orig. art. has: 4 figures and 14 formulas.

ASSOCIATION: none

SUBMITTED: 11Jul62 DATE ACQ: 01Jul63 ENCL: 01

SUB CODE: 00 NO REF SOV: 004 OTHER: 000

Card 2/2

(4p)

ACCESSION NR: AT5001687 S/3120/64/000/003/0077/0084 B

AUTHOR: Belen'kiy, Ya. Ye.; Dobrzhanskiy, R. I.; Olesin, V. R.; Mikhaylovskiy, V. N. (Corresponding member AN UkrSSR)

TITLE: An estimate of the minimum switching voltage and the maximum number of channels of a matrix semiconductor commutator

SOURCE: AN UkrSSR. Fiziko-mekhanicheskiy institut. Voprosy peredachi informatsii, no. 3, 1964, 77-84

TOPIC TAGS: commutator, matrix commutator, switching voltage, commutator channel number, operating stability, noise level, remote control, contactless distributor

ABSTRACT: The contactless distributors of multichannel systems widely used for automation and remote control use the principle of matrix addition of pulse voltages. The authors investigated the matrix circuits of contactless distributors utilizing polyphasic multivibrators (Ya. Ye. Belen'kiy, V. N. Mikhaylovskiy, Avtomatika i telemekhanika, vol. XXII, no. 8, 1961). The determination of the minimum switching voltage is obtained from the calculations of the commutator circuit noises. These calculations use the concept of noise temperature (A. P. Belousov,

Card 1/2

ACCESSION NR: AT5001687

Raschet koeffitsiyentsa shuma radiopriyemnikov Voyengiz, M., 1959). Calculations also yield formulas which can be used for the calculation (for a given set of operating parameters) of the maximum number of channels (outputs) of the above-mentioned matrix circuit. Introducing the usual range of values for the operating parameters, the total number of commutator channels turns out to be between 16 and 4900. An experimental check was carried out on a 63-channel transistorized commutator model. Circuit noises did not exceed 1-1.5 μv, and a 3 μv applied signal could be reliably detected at the amplified output by a phase detector. The signal frequency was 1500 c/sec. Heating up to 110C raised the noise level by 10-15%. The commutator was unaffected by power supply voltage variations up to ±15%. Orig. art. has: 16 formulas and 3 figures.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: EC, IE

NO REF SOV: 005 OTHER: 001

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Card

L 22120-65 EWT(1)/EWA(h) Peb AFETR/ESD(c)

ACCESSION NR: AT5001689 S/3120/64/000/003/0100/0103

AUTHOR: Belen'kiy, Ya. Ye.

TITLE: Controlled polyphasic pulse generator 25 B+1

SOURCE: AN UkrSSR. Fiziko-mekhanicheskiy institut. Voprosy peredachi informatsii, no. 3, 1964, 100-103

TOPIC TAGS: commutator, contactless commutator, polyphase generator, multivibrator, silicon triode

ABSTRACT: Modern technology utilizes an ever greater number of contactless commutators controlled by polyphasic pulse generators. Such generators can be designed using the well-known polyphasic multivibrator circuit. Then, on the one hand, they are self-exciting and generate stable closed cycles while, on the other hand, they may be stopped at any of the arbitrary channels over an arbitrary period of time, i.e., they may have n stable states distinct from the metastable intervals between the pulses. The principle of such a device is shown in Fig. 1 of the Enclosure. It is quite inexpensive since, e.g., in the case of 110 channels, one needs only 42 triodes and a like number of diodes. A pilot device using silicon triodes operated

Card 1/2

L 22120-65

ACCESSION NR: AT5001689

reliably during ±15% variations in line voltage and an operating temperature from -10 to +115C. Orig. art. has: 1 figure.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 01 SUB CODE: EC

NO REF SOV: 003 OTHER: 000

Card 2/3

L 7860-66 EWT(1)/EWA(h)

ACC NR: AP5026860 SOURCE CODE: UR/0108/65/020/011/0021/0023

AUTHOR: Belen'kiy, Ya. Ye. (Active member)

ORG: Scientific and Technical Society of Radio Engineering and Telecommunications im. A. S. Popov (Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi)

TITLE: Frequency divider with an arbitrary division coefficient

SOURCE: Radiotekhnika, v. 20, no. 11, 1965, 21-23

TOPIC TAGS: frequency divider, multivibrator, frequency conversion, frequency discriminator

ABSTRACT: Usually, frequency dividers with a conversion coefficient other than 2.0 are quite complicated due to the inclusion of auxiliary feedbacks. The present article describes in detail the design of a new efficient frequency divider which can operate with an arbitrary division coefficient. It is a relaxation-type device in which, at an arbitrary instant of time, each stage of a multiphase multivibrator circuit, shown in Fig. 1, generates consecutively a pulse belonging to a sequence. The duration of each pulse may be controlled in an arbitrary manner by the RC parameter of the loop. The system, with different RC loops constitutes a multiphase asymmetric multivibrator. When a pulsed or sinusoidal voltage is introduced into the overall channel circuit through the joint cathode resistance, the multivibrator synchronizes the operation of each stage. Depending on the duration T_i of the pulse of the i-th multivibrator

UDC: 621.374.4

Card 1/3

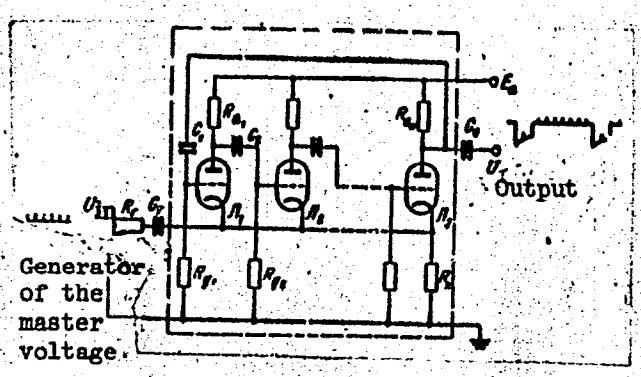


Fig. 1. Multiphase multivibrator

L 7860-66
ACC NR: AP5026860

stage and the synchronization period T_s (for a prescribed synchronizing voltage) the trapping by the j-th synchronization pulse ($j \sim T_i/T_s$) is achieved. By changing the parameters of the transient RC loops the actuation of the i-th stage is achieved after a prescribed number of j_i periods of the synchronizing voltage sequence. In such a case the n-phase multivibrator can supply a division coefficient given by $N = \sum_{i=1}^{n} j_i$, where j_i is the trapping multiplicity of the synchronization voltage by the stage. The article concludes with a brief discussion of the possible applications of the device. Orig. art. has: 6 formulas and 2 figures. [08]

SUB CODE: 09 / SUBM DATE: 02Mar63 / ORIG REF: 004/ ATD PRESS: 4146

Card 3/3

ACC NR: AP6032514 SOURCE CODE: UR/0413/66/000/017/0089/0089

INVENTOR: Belen'kiy, Ya. Ye.

ORG: none

TITLE: Multiphase multivibrator. Class 42, No. 185547

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 17, 1966, 89

TOPIC TAGS: multivibrator, transistor, multiphase multivibration, capacitive coupling, pnp transistor, npn transistor

ABSTRACT: The proposed multiphase multivibrator has a variable quantity of outputs and uses transistors with capacitive couplings between stages. The emitters of the transistors are unified and connected to a common resistor. Moreover, in order to realize natural oscillation conditions, the multivibrator contains two auxiliary transistors. One of them is a p-n-p-type and is connected by the emitter with the general emitter resistance. The second transistor is n-p-n-type and its base is connected to the collector of the first transistor. The collector of the second transistor is connected through the capacitance with the base of the first transistor

Card 1/2 UDC: 681.142.07:621.373.431.1

ACC NR: AP6032514

of the multivibrator. Orig. art. has: 1 figure. [Translation]

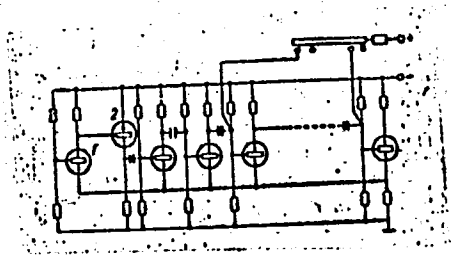


Fig. 1. Multiphase multivibrator. 1—Auxiliary type p-n-p transistor; 2—auxiliary type n-p-n transistor

SUB CODE: 09/SUBM DATE: 06Aug64/

Card 2/2

ACC NR: AT6022241 SOURCE CODE: UR/0000/66/000/000/0160/0167

AUTHOR: Belen'kiy, Ya. Ye.

ORG: none

TITLE: Multiphase relaxation oscillators: a new class of digital elements

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya radiotekhniki. Doklady. Moscow, 1966, 160-167

TOPIC TAGS: switching circuit, circuit design, circuit theory, oscillator, digital element

ABSTRACT: The author surveys the development of a new class of digital elements designated the multiphase relaxation oscillators. These are subdivided into self-starting multiphase multivibrators, having any number of stable states, biased multiphase multivibrators with one stable state, and multiphase flip-flops having n stable states. These circuits may be used as switches operating in the cyclic, start-stop, or stepped modes depending on the preset program. The functional capabilities of these circuits are described in general terms. Among the advantages cited for this class of elements is an inherent simplicity of their circuits which are small in size, reliable, and easy to manufacture. Their disadvantage lies in the complexity of their associated dynamic processes which are not easily described by ordinary mathematical means. Orig. art. has: 1 figure. SUB CODE: 09/ SUBM DATE: 16Mar66/ ORIG REF: 008

Card 1/1

ACC NR: AT7004331 SOURCE CODE: UR/0000/66/000/000/0140/0149

AUTHOR: Belen'kiy, Ya. Ye. (L'vov)

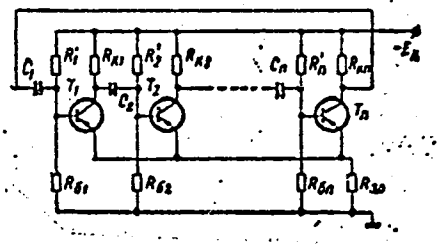
ORG: none

TITLE: Minimum operating time of polyphase semiconductor multivibrators

SOURCE: AN UkrSSR. Metody i sredstva preobrazovaniya informatsii (Methods and means of information conversion). Kiev, Naukova dumka, 1966, 140-149

TOPIC TAGS: multivibrator, polyphase multivibrator, semiconductor device

ABSTRACT: The minimal pulse duration in a polyphase multivibrator (see figure) is determined by the pulse rise time which, in turn, is determined by spurious parameters of the circuit and frequency characteristics of transistors. To determine the pulse duration, the flipping process



Card 1/2

ACC NR: AT7004331

is examined. As a result, this formula for the flipping time is derived:

$$t_0 = \frac{1}{\sqrt[3]{\sigma_T}} \ln \frac{100}{\delta\%}$$

or

$$t_0 = \sqrt[3]{\frac{nC_{a.s}}{(2\pi f_\alpha)^2 g_{i_0}}} \ln \frac{100}{\delta\%}.$$

The latter formula shows that t_0 increases as the cubic root of the number of stages and spurious capacitances of the circuit and that t_0 is inversely proportional to the maximum transistor frequency in 3/2 power. Oscillograms of polyphase pulses obtained experimentally with Soviet transistor types verifying the above formula are shown. Orig. art. has: 6 figures and 26 formulas.

SUB CODE: 09 / SUBM DATE: 14Jul66 / ORIG REF: 002

Card 2/2

ACC NR: AT7004333 SOURCE CODE: UR/0000/66/000/000/0156/0160

AUTHOR: Belen'kiy, Ya. Ye. (L'vov)

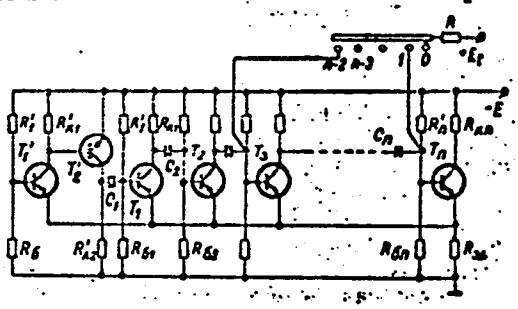
ORG: none

TITLE: Cyclic contactless switch with controlled number of channels

SOURCE: AN UkrSSR. Metody i sredstva preobrazovaniya informatsii (Methods and means of information conversion). Kiev, Naukova dumka, 1966, 156-160

TOPIC TAGS: electronic switch, automatic electronic switch, automatic control equipment

ABSTRACT: A self-excited multiphase multivibrator (see figure) is suggested for use in time-division multiplex systems in which the number of cyclically interrogated channels may change. Transistors T_1', T_1 —T_n are of the pnp type. Transistor T_2' is npn. A modification of this circuit in which a contactless divider controls the number of generating stages is also briefly discussed. The circuit combines the functions of distributor, master oscillator, logic device, and quantizer; it requires only



Card 1/2

ACC NR: AT7004333

one transistor per channel, and has minimal power consumption (only one transistor at a time is open). However, the order in which the stages are turned off always remains the same, which might prove to be a disadvantage in some applications. Orig. art. has: 4 figures.

SUB CODE: 09 / SUBM DATE: 14Jul66 / ORIG REF: 002

Card 2/2

BELEN'KIY, Ya.Yu.; MIKHAYLOVS'KIY, V.M.; SVENSON, O.M.

Circuit solution of multiple-channel commutation.
Avtomatyka no.4:54-61 '56. (MLRA 10:2)

1. Institut mashinoznavstva ta avtomatiki AN URSR.
(Electronic circuits)

BELEN'KIY, Ye., nauchnyy sotrudnik

Bacteria killers. Nauka i zhizn' 28 no.4:79-80 Ap '61.
(MIRA 14:5)

1. TSentral'nyy aptechnyy nauchno-issledovatel'skiy institut.
(Antiseptics) (Dyes and dyeing)

MOROZOV, I.A., inch.; BELEN'KIY, Ye.B., inspektor po kadram

Work practices of the efficiency experts of the Lvov Province Administration of Radio Relay Systems. Vest. sviazi 24 no.10: 30-31 O '64. (MIRA 17:12)

BELENKIY, Ye. F. DECEASED 1962 ~~1961~~

c. 1960

SEE ILC

CHEMISTRY

BLINOV, O.S.; BELEN'KIY, Ye.L.; BRAUSEVICH, S.T.; DOROKHOV, B.A.; ZIGMUND, F.R.; ITSIKOV, G.B.; LEVER, A.A.; LESHCH-BORISOVSKIY, A.I.; MURTUZALIYEV, S.A.; PIIR, A.I.; YUZIKHIN, Ye.Ye.; YAKIMOV, I.D.; SHCHELKUNOV, V.V., retsenzent; GONCHAROV, A.F., otv. red.; KORCHUNOV, N.G., otv. red.; NIKOL'SKIY, B.V., otv. red.; POSTREMOV, G.A. [deceased]; SLUTSKER, M.Z., red. izd-va; SHIBKOVA, R.Ye., tekhn. red.

[Lumbering; land transportation of timber] Lesozagotovki; sukhoputnyi transport lesa. Spravochnik. Moskva, Goslesbumizdat, 1962. 504 p. (MIRA 16:7)
(Lumber—Transportation)

BELEN'KIY, Ye.S.

BELOVÁ, A. N., BELEN'KIY, Ye. S., and Robotalova, Ye. K.

Pnevmoentsefalografiya v detskoy psikhiatricheskoy praktike p. 126
V sb Aktual'nyye Problemy Nevropatologii i Psikhiatrii, Kuybyshev, 1957.

Kuybyshev Psikhonevrologicheskoy Bol'nitsy.

BELEN'KIY, Ye.S.

Technique of one-step tomography in craniography and pneumoencephalography. Trudy Gos. nauch.-issl. psikhonevr. inst. no.24:237-240 '61. (MIRA 15:5)

1. Rentgenologicheskoye otdeleniye Gosudarstvennogo nauchno-issledovatel'skogo psikhonevrologicheskogo instituta imeni Bekhtereva.
(BRAIN—RADIOGRAPHY)

MALAKHOV, G.M., prof., doktor tekhn. nauk; VASHCHENKO, V.S., KHIVRENKO, A.F.; VERESA, F.I.; BELEN'KIY, Ye.V.; SHMALIY, V.Ya.; PETRENKO, P.D.; BEZUKH, V.R.; SHULIN, N.I.; RODIONOVA, N.P., ved. red.

[Technical progress at the "Gigant" Mine in the Krivoy Rog Basin] Tekhnicheskii progress na shakhte "Gigant" v Krivorozhskom basseine. Moskva, Nedra, 1964. 119 p. (MIRA 18:3)

1. Glavnyy inzhener i nachal'nik shakhty "Gigant" v Krivorozhskom Basseyne (for Vashchenko).

MALAKHOV, G.M.; VASHCHENKO, V.S.; KHIVRENKO, A.F.; VERESA, F.I.; BELEN'KIY, Ye.V.; PETRENKO, P.D.; BEZUKH, V.R.

Fundamental improvement in the technology of mining at the "Gigant" Mine. Gor.zhur. no.1:36-40 Ja '65. (MIRA 18:3)

BELEN'KIY, Ye, Ye.

USSR / Pharmacology, Toxicology. Analeptics U-3

Abs Jour : Referat Zh.-Biol., No 1, 1958, No 3371

Author : Belen'kiy, Ye,Ye.

Inst : Not given

Title : The Effect of Certain Pharmacologic Agents and Their Combinations on a Conditioned Reflex Digestive Leucocytosis.

Orig Pub : Materialy k izucheniyu zhen'shenya; limonika. Vyp. 2. M.-L., AN SSSR, 1955, 114-119.

Abstract : By observing 20 young males it was determined that the amount of conditioned reflex digestive leucocytosis was increased after the administration of substances stimulating CNS [central nervous system] activity. The administration of 0.1 ml of an extract of ginseng root caused an increase in conditioned reflex digestive leucocytosis of 107% of the

Card : 1/2

USSR / Pharmacology, Toxicology. Analeptics U-3

Abs Jour : Referat Zh.-Biol., No 1, 1958, No 3371

Abstract : normal amount administration of 1 ml caused an increase of 132-133%, and 3 ml - an increase of 111%. Phenamine (0.01 g) caused an increase in the conditioned reflex digestive leucocytosis of 129%, caffein (0.2 g) of 125%, strychnine (10 drops of the tincture of Strychnos Nux vomica) - of 114%, dibasol (0.005 g) of 120%. After the administration of dibasol with sodium bromide, the increase in digestive leucocytosis was less pronounced, and after the administration of dibasol with caffein the digestive leucotytosis was more pronounced than that following the use of dibasol alone. The author conjectures that the stimulating effect of ginseng is due to its ability to augment as does sodium bromide, the inhibitory process, and also because of the excitatory effect of gensing (similar to caffein) upon the CNS.

Card : 2/2

BELEN'KIY, Ye.Ye., Cand Med Sci — (diss) "Data for the study of the effect of dibazol and certain other neurotropic substances on the nervous system." Perm', 1959, 12 pp (Perm' State Med Inst) 200 copies (KL, 28-59, 130)

BELEN'KIY, Ye.Ye., mladshiy nauchnyy sotrudnik, kand.med.nauk

Effect of cardiac glycosides on the summation capacity of the nervous system. Sbor. nauch. trud. TSANII 3:161-166 '62. (MIRA 16:11)

1. Laboratoriya biologicheskoy i khimicheskoy standartizatsii lekarstv (rukovoditel' laboratorii - prof., doktor med.nauk N.G.Polyakov) TSentral'nogo aptechnogo nauchno-issledovatel'skogo instituta.

POLYAKOV, N.G., prof.; CHERIKOVSKAYA, T.Ya., kand. med. nauk; SIDORKOV, A.M., kand. farmatsevt. nauk; BELEN'KIY, Ye.Ye., kand. med. nauk; KUZ'MINA, K.K., provizor; VASIL'YEVA, S.F., provizor; POLYAKOV , N.G., prof., red.; FEL'DSHER, L.N., red.; KUCHERENKO, V.D., red.; CHULKOV, I.F., tekhn. red.

[Basic medicinal preparations and prepared drugs; a manual for physicians] Osnovnye lekarstvennye preparaty i gotovye formy; spravochnik dlia vrachei. Moskva, Medgiz, 1963. 359 p. (MIRA 17:2)

BELEN'KIY, Ye.Ye., kand. med. nauk

Mechanism of the cholinergic action of cardiac glycosides. Sbor. nauch. trud. TSANII 4:159-171 '63 (MIRA 17:3)

Effect of some substances on the activity of strophanthin. Ibid.:172-177

1. Laboratoriya biologicheskoy i khimicheskoy standartizatsii lekarstv (rukovoditel' laboratorii - prof. doktor med. nauk N.G. Polyakov) TSentral'nogo aptechnogo nauchno-issledovatel'skogo instituta.

BELEN'KIY, Ye.Ye.

Effect of caffeine, ginseng and dibazol on the work of proof-readers. Mat. k izuch. zhen'. i drug. lek. rast. Dal'. Vost. no.5:105-110 '63.

Effect of ginseng and some other substances on the course of alcohol and hexenal anesthesia. Ibid.:129-132 (MIRA 17:8)

1. Permskiy farmatsevticheskiy institut.

KOLLA, V.E.; BELEN'KIY, Ye.Ye.

Comparative effect of the extracts of ginseng and carline thistle on the duration of forced swimming of white mice. Mat. k izuch. zhen'. i drug. lek. rast. Dal'. Vost. no.5:115-117 '63.

Increasing the resistance of the nervous system of white mice to the inhibitive effect of sodium bromide by the administration of ginseng, dibazol and carline thistle. Ibid.:119-122 (MIRA 17:8)

1. Permskiy farmatsevticheskiy institut.

BELEN'KIY, Ye.Ye.; KOLLA, V.E.; STARTSEVA, I.P.

Effect of ginseng and the long-leaf carline thistle on Sechenov's inhibition. Mat. k izuch. zhen'. i drug. lek. rast. Dal'. Vost. no.5:133-135 '63. (MIRA 17:8)

1. Permskiy farmatsevticheskiy institut.

BELEN'KIY, Ye.Ye., kand. med. nauk; BRYAKOVA, I.I.; OVCHINNIKOVA, A.A.

Method of standardizing the pharmaceutical mixture of adonisida and cordiamine. Sbor. nauch. trud. TSANII 4:178-182 '63
(MIRA 17:3)

1. Laboratoriya biologicheskoy i khimicheskoy standartizatsii lekarstv (rukovoditel' laboratorii - prof. , doktor med. nauk N.G. Polyakov) TSentral'nogo aptechnogo nauchno-issledovatel'skogo instituta.

BELEN'KIY, Ye.Ye., kand. med. nauk; POLYAKOV, N.G., prof., doktor med. nauk

Effect of methyluracil on the cardiac function. Sbor. nauch. trud. TSANII 6:147-151 '64. (MIRA 19:1)

1. Laboratoriya biologicheskoy i khimicheskoy standartizatsii lekarstv (rukovoditel' - N.G. Polyakov) TSentral'nogo aptechnogo nauchno-issledovatel'skogo instituta.

6(2) SOV/111-59-8-24/30

AUTHORS: Sobko, A. I., Chief and Belen'kiy, Ye. Z., Chief

TITLE: For Wider Dissemination of the Experience in the Operation of the School Post

PERIODICAL: Vestnik svyazi, 1959, Nr 8, p 29 (USSR)

ABSTRACT: This article outlines the operation of the school post at the secondary school in the village of Verkhniye Bilki in the Vinnikovskiy rayón of the L'vov Oblast, originally described in the article "A Useful Beginning" (Vestnik svyazi, 1957, Nr 8), and mentions other activities in connection with the school post. There are groups for the study of postal and telegraphic communications, and radiofication; the school also has an operating radio center. Through the school post communications enterprises in the oblasts have been supplied with 3 workers: Koval' Mariya, post and telegraph agent at the L'vov post office, and Mariya and Stefaniya Maksimets, chiefs of the communications sections in Shernushevichi and Verkhniye Bilki respectively. A. A. Gnatoskiy, supervisor of the Vinnikovskaya kontora svyazi (Vinniki

Card 1/2

For Wider Dissemination of the Experience in the Operation of the School Post

Communications Office), is in charge of training radio-telegraphists at the school. Other training programs are also mentioned. The authors note that the school posts are operating in other oblast rayons. There are 2 photographs.

ASSOCIATIONS: L'vovskoye oblastnoye upravleniye svyazi (L'vov Oblast Communications Administration) (A. I. Sobko); and the Oblastnoy otdel "soyuz-pechat'" (Oblast Division "Soyuz-pechat'") (Ye. Z. Belen'kiy)

Card 2/2

BEIEN'KIY, Ye.Z.

Our hidden potentials. Vest. sviazi 23 no.12:22 D '63. (MIRA 17:2)

1. Starshiy inzh. L'vovskogo pochtamta.

BELEN'KIY, Ye.Z.

Work with enthusiasm as true communists should. Vest. sviazi 23 no.2: 31-32 F '63. (MIRA 16:2)

1. Starshiy inzh. po tekhnicheskoy propagande i ratsionalizatorskoy rabote L'vovskogo pochtamta.
(Postal service—Letter carriers) (Telecommunication—Employees)

BELEN'KIY, Yu.B.; DRONIN, M.I.; METLYUK, N.F.; FRUMKIN, A.K., doktor tekhn. nauk, prof., retsenzent

[New developments in the design and construction of motor-vehicle brakes] Novoe v raschete i konstruktsii tormozov avtomobilei. Moskva, Mashinostroenie, 1965. 118 p. (MIRA 18:7)

L 1649-66 (A)

ACCESSION NR: AP5021630 UR/0286/65/000/013/0111/0111

AUTHORS: Belen'kiy, Yu. B.; Imasheva, N. P.; Lomako, D. M.

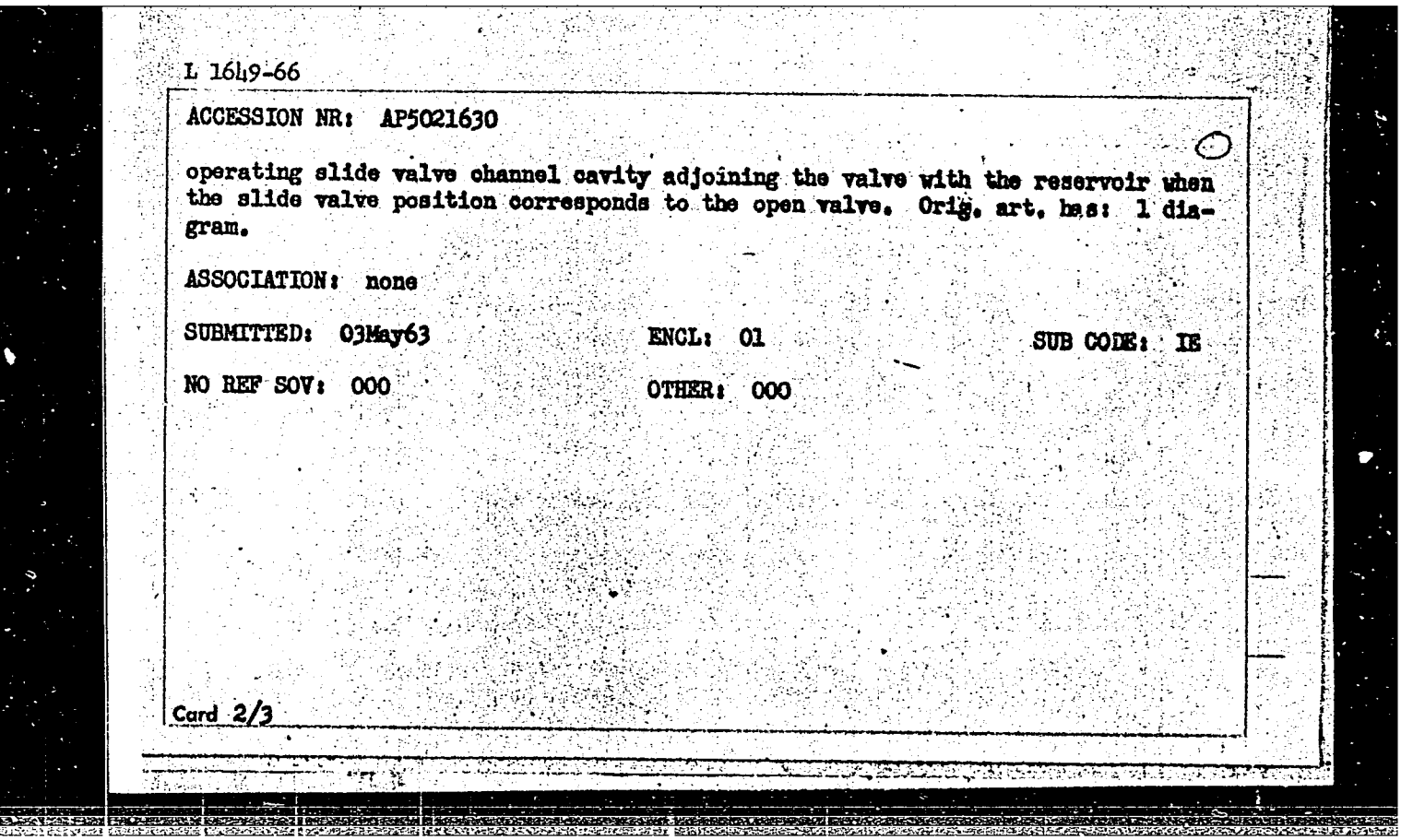
TITLE: Position regulator for the body of a vehicle. Class 63, No. 172641

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 13, 1965, 111

TOPIC TAGS: hydraulic system, shock absorber

ABSTRACT: This Author Certificate presents a position regulator for the body of a vehicle, e.g., an automobile, for maintaining a constant height of the body above the road by regulating the motion of the elastic unit of a pneumohydraulic suspension. The regulator includes a piston pump which is actuated by the oscillations of the automobile suspension, a pressure accumulator, a liquid reservoir, and a valve connecting the pump with the pressure accumulator. To admit and discharge liquid from the regulator cavity into the elastic unit cavity through a common channel, the regulator is provided with a valve placed in the channel and controlled by the shaft of a differential slide valve which is moved by the liquid pressure (see Fig. 1 on the Enclosure). The operating slide valve channel cavities adjoining the slide valve end surfaces are connected to the corresponding pump cavities. The slide valve is made with an internal channel connecting the

Card 1/3



L 1649-66

ACCESSION NR: AP5021630

operating slide valve channel cavity adjoining the valve with the reservoir when the slide valve position corresponds to the open valve. Orig. art. has: 1 diagram.

ASSOCIATION: none

SUBMITTED: 03May63 ENCL: 01 SUB CODE: IE

NO REF SOV: 000 OTHER: 000

Card 2/3

L 1649-66
ACCESSION NR: AP5021630

ENCLOSURE: 01

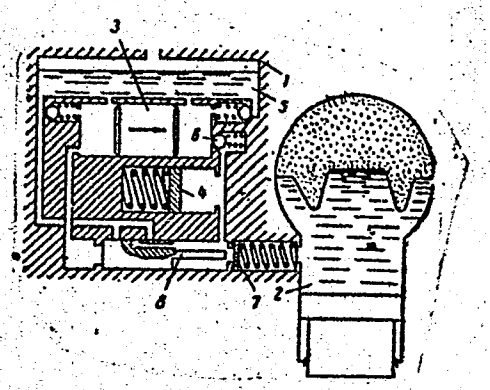


Fig. 1.
1- body position regulator housing; 2- elastic unit of pneumo-hydraulic suspension; 3- piston pump; 4- pressure accumulator; 5- liquid reservoir; 6- valve connecting pump and pressure accumulator; 7- valve connecting regulator and elastic unit; 8- differential slide valve

Card 3/3 DP

Belenkiy, Yu.B.

AUTHOR: None Given 113-58-7-22/25

TITLE: Inventions in the Automobile Industry (Izobreteniya v avtomobil'noy promyshlennosti)

PERIODICAL: Avtomobil'naya promyshlennost', 1958, Nr 7, p 43 (USSR)

ABSTRACT: The Inventions and Discoveries Committee at the USSR Council of Ministers released authors' certificates on the following inventions of 1956-57: N.B. Kanilevich and N.N. Yefimenko, "An Automobile for the Transportation of Railway Containers and Other Loads"; Yu.B. Belen'kiy, "A Block Brake Mechanism"; N.A. Nikitin, D.I. Tylevich, "A Body of a Dump Truck for the Transportation of Building Material Solutions"; V.V. Burkov, "A Sectional Automobile Radiator"; I.T. Yefimenko, "A Spring Suspension for Automobiles and Other Mechanisms"; P.S. Fomin, "A Synchronizer with a Disk Gear for Transmissions"; L.V. Klubov, "A Hydromechanical Automatic Three-Stage Transmission"; G.M. Dekanozov, "An Apparatus for Dynamical Testings of Automobiles"; D.V. Breygin, "A Mechanical Transmission"; I.I. Ziberov, "A Stand for the Disassembly and Assembly of Automobile Tires"; D.V. Kozmenko, V.P. Kurunov, V.G. Palatko, A.A. Khalyavin, "An Automat for the Tilting of Cabins and Car Bodies on the Conveyor Belt"; P.V. Boguslavskiy, "A Combined Truck

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Body"; V.B. Tsimbalin, "A Stand for the Investigation of the Smooth Running of the Automobile and Testing of the Assembly Units and Parts for Durability"; V.B. Tsimbalin, "A Device for Tests of Automobiles with Respect to Smooth Running and Adjusting of New Automobiles in the Assembly Workshop"; Yu.B. Belen'kiy, " A Brake Crane for Automatic Automobile Brakes"; I.S. Izakson, B.I. Kharif, "A Stand for Checking the Brakes of Automobiles of All Types"; M.I. Lysov, "An Intensifier of the Steering Control of Automobiles with Progressive Reaction on the Steering Wheel"; N.B. Kapilevich, N.N. Yefimchenko, "An Automobile with a Hydraulic Lifting Crane"; V.A. Mushkin, "A Device for the Regulation of the Water Temperature in the Cooling System of the Automobile Engine"; M.I. Lysov, "A Pneumatic Intensifier of the Steering Control of the Automobile"; Yu.G. Sedykh, "The Gear Box"; V.D. Chistyakov, "A Device for the Washing of Motor and Tractor Parts"; N.G. Balakirev, "The Autotrailer"; P.D. Matyuk, A.I. Surykin, "A Detachable and Interchangeable Multi-Stage Contrivance of the Truck Body"; A.P. Krivshin, G.I. Pshenichnyy, "A Torsion Mechanism"; G.I. Azorevich, N.M. Riberg, "A Synchronizer of the Peripheral Speeds of the Cog Wheels for Gear Boxes with Gliding Cog Wheels"; B.I. Rabinkov, "A Planetary Transmission with a Double

Power Supply"; D.T. Gapoyan, I.A. Kurzel', "A Hydromechanical Automatic Gear Box for the Automobile"; A.A. Romanov, "An Automatic Compensation of the Wear of Brake Linings"; A.N. Kolesnichenko, "A Universal Stand for Tests of the Lifting Mechanisms of Dump Trucks"; I.I. Ozherel'yev, "A Mechanism of Engaging the Springs of a Three-Axle Automobile"; V.N. Maslennikov, D.I. Ivanov, "A Washing Device for the Wind Screen of the Automobile, Autobus and Other Wheeled Vehicles"; M.I. Lysov, "A Method of Trying Out the Intensifiers of the Steering Control"; V.K. Sankidze, "A Device for the Stabilization of the Vertical Position of a Self-Propelled Mountain Vehicle in Motion Along Mountain Slopes; M.I. Lysov, "A Hydraulic Intensifier of the Steering Control of the Automobile".

1. Inventions--USSR 2. Automotive industry--USSR 3. Trucks--Equipment 4. Tractors--Equipment 5. Automobiles--Equipment

BELEN'KIY, Yu.B.

Comparative evaluation of properties of motor-vehicle braking systems. Sbor.nauch.trud.Bel.politekh.inst. no.72:30-44 '59. (MIRA 13:6)

(Motor vehicles—Brakes)

BELEN'KIY, Yu.B.

Improving the performance of motor-vehicle shock absorbers. Sbor.nauch.trud.Bel.politekh.inst. no.72:53-59 '59. (MIRA 13:6)

(Motor vehicles--Shock absorbers)

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Cand Tec Sci, Diss -- "On a method of selecting the basic parameters and construction of shoe brakes and drives of automobiles and tractors". Minsk, 1961. 32 pp, 20 cm (Dept of Tec Sci, Acad Sci BSSR), 200 copies, Not for sale, 16 ref in bibl on pp 3-5 (KL, No 9, 1961, p 181, No 24326). /61-51113/

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Requirements for braking properties in a motor vehicle. Avt. prom. 29 no.5:26-27 My '63. (MIRA 16:4)

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BELEN'KIY, Yu.B., kand.tekhn.nauk; IMASHEVA, N.P.

Review of "Pneumatic and hydropneumatic suspensions" by IA.M. Pevzner, A.M.Gorelik. Avt.prom. 30 no.1:47-48 Ja '64. (MIRA 17:3)

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BELEN'KIY, Yu.B., kand. tekhn. nauk; IMASHEVA, N.P.; LOMAKO, D.M.

Approximate calculation of natural vibrations of nonlinear suspensions of motor vehicles. Avt. prom. 30 no.10:28-30 O '64. (MIRA 17:11)

1. Belorusskiy politekhnicheskiy institut i Minskiy avtozavod.

ACC NR: AP7006716 (A) SOURCE CODE: UR/0113/66/000/012/0016/0018

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

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

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

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

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

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

Card 1/3 UDC: 629.113:629.11.012.5.001.5

ACC NR: AP7006716

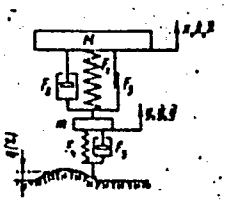

Fig. 1

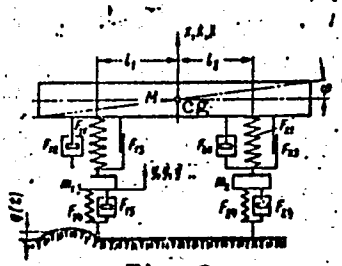

Fig. 2

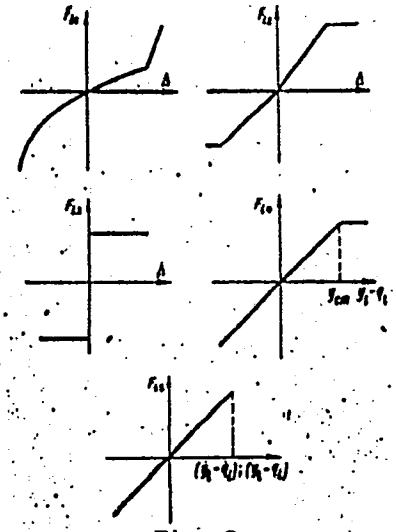

Fig. 3

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ACC NR: AP7006716

$$\ddot{x}+\sum_{i=1}^{n}\beta_i(F_{i1}+F_{i3}+F_{i4})=0;$$

$$\ddot{\varphi}+\sum_{i=1}^{n}\lambda_i(F_{i1}+F_{i3}+F_{i4})=0;$$

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

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

SUB CODE: 13 / SUBM DATE: None

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L 10296-67 EWT(d)/EWT(l)/EWP(f)/EWP(c)/EWP(v)/EWP(k)/EWP(h)/EWP(l)
ACC NR: AP7003088 SOURCE CODE: UR/0292/66/000/010/0001/0004

AUTHOR: Belen'kiy, Yu. M. (Engineer); Gertsov, S. M. (Engineer); Lutsenko, V. Ye. (Engineer); Minkin, M. M. (Engineer); Katkov, G. F. (Candidate of technical sciences)

ORG: none

TITLE: Serial production of step electric motors

SOURCE: Elektrotekhnika, no. 10, 1966, 1-4

TOPIC TAGS: electric motor, electric industry

ABSTRACT: As a result of extensive theoretical and experimental work it was shown that most reliable step motors are of the split-phase magnitoelectric and four-phase inductor type.

The USSR industry at present manufactures 14 models of split-phase magnitoelectric step motors which designated by letters ShDA. All these motors have 16 steps for each complete revolution and operate on a voltage of 14 or 28 volts; they weigh from 110 to 1,500 grams.

The four-phase inductor type step motors are manufactured in 15 models and are designated by letters ShDR. These motors have 24, 40, 56 or 120 steps for each complete revolution; they all operate on a voltage of 10 volts; their weight ranges from 100 to 700 grams. Orig. art. has: 4 figures and 2 tables. [JPRS]

SUB CODE: 09, 05 / SUBM DATE: none / ORIG REF: 004.

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UDC: 621.313.13-133.3.001.3