FRENKEL',I.M.---(continued) Card 2.

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut betona i zhelezobetona, Perovo. 2. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Kartashov). 3. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Mironov). 4. Gosudarstvennyy institut tipovogo proyektirovaniya i tekhnicheskikh issledovaniy (for Berdichevskiy, Vasil'yev, Lyudkovskiy, Svetov, Chinenkov, Belobrovyy, Klevtsov, Dobromyslov). 4. Vsesoyuznyy gosudarstvennyy proyektno-konstruktorskiy institut (for Desov, Litver, Pishchik).

(Precast concrete)

POPOV, A.P., uchitel'

"Living earth" by G. Fish. Reviewed by A. P. Popov.
Biol. v shkole no.4:94-95 Jl-Ag '61. (MIRA 14:7)

1. Slashchevskoy shkoly Podtelkovskogo rayona Stalingradskoy oblasti.
(Mal'tsev, Terentii Semenovich, 1895-)
(Fish, G.)

[redacted], V. A.; [redacted].

Muskrats

Regular tasks of state muskrat enterprises. Kar. i zver., 5, No. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952. UNCLASSIFIED.

POPOV, A.P.

I.V.Michurin - a militant atheist ("Scientific atheistic significance of I.V. Michurin's theories." A.N.Bakharev. Reviewed by A.P.Popov). Est. v shkole no.6:85-86 N-D '54. (MLRA 7:12)

1. Uchitel' Slashchevskoy sredney shkoly Podtelkovskogo rayona Stalingradskoy oblasti.
(Michurin, Ivan Vladimirovich, 1855-1935) (Bakharev, A.N.)

POPOV, A.P., uchitel'

Book on a great naturalist for young readers ("The great naturalist Charles Darwin" by V.Korsunskaia. Reviewed by A.P.Popov). Biol. v shkole no.5:94-95 S-O '60. (MIRA 13:11)

1. Slashchevskaya srednyaya shkola, Podtelkovskogo rayona, Stalingradskoy oblasti.
(Darwin, Charles Robert, 1809-1882) (Korsunskaia, V.)

SOV/26-59-1-32/34

AUTHOR: Popov, A.P. (Podtelkovskiy Rayon of the Stalingrad Oblast)

TITLE: Late Migration of Wild Geese (Pozdniy perelët dikikh gusey)

PERIODICAL: Priroda, 1959, Nr 1, p 126 (USSR)

ABSTRACT: Two flights of wild geese on their way from north to south were observed in the Stalingrad Oblast on 2 January 1956. Usually, wild geese migrate south not later than at the end of October. On 2 January 1956 it was extremely mild with warm wind, thaw and a mild rain. The phenomenon was limited to the Stalingrad region.

Card 1/1

POPOV, A.P.

Echinococcal cyst of the neck. Nov.khir.arkh. no.2:108 Mr-Ap '58
(MIRA 11:6)

1. Odesskiy meditsinskiy institut.
(NECK--HYDATIDS)

Popov, As.

BULGARIA/Fermentation Industry. H.

Abs Jour : Ref Zhur - Khimiya, No 19, 1958, 65801

Author : Rankov G, Popov As, Iovchev A
Inst : -
Title : Comparative Study of Methods of Determination of Methanol in Vadka.

Orig Pub : Izv. khim. in-t, Bulg. AN. 1957, 5, 217-235.

Abstract : It was established that the Shriver method with the use of phenylhydrazine is sufficiently sensitive, but it is complicated and does not give reproducible results. The Shveytsarskiy method is suitable for the determination of large quantities of methanol (I), but is not suitable for the determination of small quantities. The method of determination by means of chromotropic acid permits the determination of I (with content ~ 3ml/l) within a range of 8-9%. It can be recommended for the determination of 0.01-8 ml/l of I in vodka,

Card 1/2

SOKOLOVSKIY, V.D., Marshal Sovetskogo Soyuza; BELIAYEV, A.I., polkovnik; GASTILOVICH, A.I., doktor voyennykh nauk, prof. general-polkovnik; DENISENKO, V.K., polkovnik; ZAV'YALOV, I.G., general-mayor; KOLECHITSKIY, V.V., general-mayor; LARIONOV, V.V., kand. voyennykh nauk polkovnik; NYRKOV, G.M., polkovnik; PAROT'KIN, I.V., kand. voyennykh nauk polkovnik; PROKHOROV, A.A., general-mayor; POPOV, A.S., polkovnik; SAL'NIKOV, K.I., polkovnik; SHIMANSKIY, A.N., polkovnik; CHEREDNICHENKO, M.I., general-mayor; SHCHEGOLEV, A.I., polkovnik; MOROZOV, B.N., polkovnik, red.; KONOVALOVA, Ye.K., tekhn. red.

[Military strategy] Voennaia strategiia; Izd.2., ispr. i dop. Moskva, Voenizdat, 1963. 503 p. (MIRA 16:10)
(Strategy)

GARETOVSKIY, Nikolay Viktorovich; POPOV, A.S., red.; ZAYTSEVA, L.A., tekhn. red.

[How a state farm fund is formed and utilized] Kak obrazuetsia i ispol'zuetsia fond sovkhoza. Moskva, Profizdat, 1963. 30 p. (Bibliotechks sel'skogo profsoiuznogo aktivista, no.3/15) (MIRA 16:12)

(State farms—Finance)

BLAGOVESHCHENSKAYA, Nataliya Sergeyevna; SEGALOV, Viktor Yefimovich; POPOV, A.S., red.; ANDREYEVA, L.S., tekhn. red.

[Organization of socialist competition in an enterprise] Organizatsiia sotsialisticheskogo sorevnovaniia na predpriiatii. Moskva, Profizdat, 1963. 94 p. (Bibliotechka profsoiuznogo aktivista, no.15 (63)) (MIRA 16:12)
(Socialist competition)

POPOV, Aleksandur, arkh.

The Institute for Standard Designing and Industrialization of Construction reports on its five-year activities. Stroitelstvo 10 no.4:29-30 Jl-Ag '63.

POPOV, A.S.

Small thermostat with semiconductor temperature regulators.
Izm. tekh. no.1:39 Ja '65. (MIRA 18:4)

DUBOVIY, A.B., red.; POPOV, A.S., red.

[Problems of trade-union work; consultations, comments, and answers to questions] Voprosy profsoiuznoi raboty; konsul'tatsii, kommentarii, otvety na voprosy. 3., perer. izd. Moskva, Profizdat, 1965. 527 p. (MIRA 18:7)

MIKHAYLOVA, A.A.; MIKHAYLOV, L.M.; POPOV, A.S.; SEKAPOVA, Ye.N.

γ irradiation of cell cultures of mammals in vitro. Radiobiologiia 5 no.4:627-628 '65. (MIRA 18:9)

POPOV, A.S.

Combined action of hydrogen peroxide and nucleic acids on Infusoria. Radiobiologiia 5 no.5:652-655 '65.
(MIRA 18:11)

VAVILKIN, Vasiliy Mikhaylovich; POPOV, A.S., red.; SHADRINA, N.D., tekhn. red.

[How to prepare for and conduct a trade-union meeting] Kak podgotovit' i provesti profsoiuznoe sobranie. 2., perer. izd. Moskva, Izd-vo VTsSPS Profizdat, 1961. 61 p. (MIRA 15:3)
(Trade unions)

43476

S/205/62/002/006/002/021
B027/E410

27 2400

AUTHOR: Popov, A.S.

TITLE: The oxidation of thymine and valine and radiation injury in infusoria

PERIODICAL: Radiobiologiya, v.2, no.6, 1962, 811-818

TEXT: The author has investigated the effect of the reaction products of thymine and valine with hydrogen peroxide upon Paramecium caudatum with the object of studying the part played by peroxides and oxidation products in radiation injury. Thymine or valine solutions of 10^{-3} molar concentration were incubated with an equimolar solution of hydrogen peroxide for 2 hours in the refrigerator, after which the excess hydrogen peroxide was decomposed with catalase. Serial dilutions of the solution and of appropriate controls (thymine or valine; hydrogen peroxide) were placed in the wells of a plexiglass plate, to each of which a standard number of P. caudatum was added. After 60 to 70 minutes at 20°C the protozoa from each of the wells were transferred to nutrient medium and examined for survival and ability to divide over a period of 24 hours. The experiments were repeated 7 to

Card 1/2

The oxidation of thymine ...

10 times and pooled to obtain sufficient numbers of organisms for statistical evaluation. There was no difference in percentage survival between thymine plus hydrogen peroxide and hydrogen peroxide alone except at a concentration of 10^{-4} M, where the difference was statistically significant. Thymine alone was not toxic. The mean number of cell divisions with thymine plus hydrogen peroxide was 62% of that with hydrogen peroxide alone. In the experiments with valine there was no difference in the percentage survival, but there was a reduction in the mean number of cell divisions with valine plus hydrogen peroxide compared with hydrogen peroxide along. There are 1 figure and 2 tables.

SUBMITTED: March 8, 1962

Card 2/2

KOVALEV, Nikolay Ivanovich; [illegible], A.S., red.

[Work of the factory, plant and local committees among the masses of industrial workers] Komissiia FZMK po proizvodstvenno-massovoi rabote. Moskva, Profizdat, 1964. 77 p. (Bibliotechka profsoiuznogo aktivista, no.14(86)) (MIRA 17:7)

S/205/63/003/001/023/029
E028/E185

AUTHOR: Popov, A.S.

TITLE: Some observations on the effect of urea peroxide on the post-radiation recovery of infusoria

PERIODICAL: Radiobiologiya, v.3, no.1, 1963, 121-125

TEXT: An investigation has been made of the effect of urea peroxide on the recovery of the ability of cells of a clone of Paramecium caudatum to divide after exposure to γ-rays in a dose of 200 kr. In preliminary experiments it was found that urea was ineffective, since paramecia irradiated in 10^{-3} and 6×10^{-3} M urea solution divided at the same rate over the next 5 days as paramecia irradiated in distilled water. In the main experiment the mitotic behavior of paramecia irradiated in solutions of urea peroxide ranging from 6×10^{-5} to 6×10^{-4} M was compared with that of 2×10^{-4} to 10^{-3} M. Again no difference was found over the subsequent period of 5 days in the rate of recovery of the ability to divide in the organisms of the test and control groups. It was therefore concluded that urea peroxide has no effect upon

Card 1/2

S/205/63/003/001/023/029
E028/E185

Some observations on the effect ... the recovery of mitotic ability after radiation damage.
There are 3 figures.

SUBMITTED: April 16, 1962

Card 2/2

BAGDASAR'YAN, Nora Aramovna; KOTLIKOV, Yakov Shmerovich; POPOV, A.S., red.

[Socialist competition and the struggle for production quality] Sotsialisticheskoe sorevnovanie i bor'ba za kachestvo produktsii. Moskva, Profizdat, 1965. 77 p. (Bibliotechka profsoiuznogo aktivista no.14(110))
(MIRA 18:8)

TSYAN' SYUE-SEN' [Ch'ien Hsueh-Sen]; BARANTSEV, R.G.[translator]; SPESHNEV, N.A.[translator]; FILIPPOV, B.V.[translator]; VALLANDER, S.V., red.; POPOV, A.S., red.

[Physical mechanics. Translated from the Chinese] Fizicheskaia mekhanika. Moskva, Izd-vo "Mir," 1965. 544 p. (MIRA 18:10)

POPOV, A.S.

Some data on the effect of urea peroxide on the recovery of Infusoria after irradiation. Radiobiologiia 3 no.1:121-125 '63. (MIRA 16:2)

(INFUSORIA) (UREA) (GAMMA RAYS—PHYSIOLOGICAL EFFECT)

PETROV, P.S., dots.; BORISKIN, S.V., dots.; VASILENKO, N.A., starshiy prepod.; GERSHANOV, Ye.M., dots.; DEMENT'YEVA, A.N., starshiy prepod.; IL'IN, V.P., dots.; NIKITIN, D.P., starshiy prepod.; NIKITIN, D.P., starshiy prepod.; SHRAMCHENKO, K.G., starshiy prepod.; YUSHIN, V.I., starshiy prepod.; POPOV, A.S., red.; MESHALKIN, V.I., tekhn. red.

[Book of the trade-union committee chairman; aid to the factory, plant and workshop committee chairman]Kniga predsedatelia komiteta profsoiuza; v pomoshch predsedateliu fabrichnogo, zavodskogo, tsekhovogo komiteta. Moskva, Profizdat, 1962. 356 p. (MIRA 16:2)

1. Moscow. Vysshaya zaochnaya shkola profdvizheniya. 2. Kafedra "Profsoyuznoye stroitel'stvo" Moskovskoy vysshey zaochnoy shkoly prodvizheniya Vsesoyuznogo tsentral'nogo soveta profsoyuzov (for all except Popov, Meshalkin). (Trade unions--Handbooks, manuals, etc.)

BLAGOVESHCHENSKAYA, Nataliya Sergeyevna;POPOV, A.S., red.; GOLICHENKOVA, A.A., tekhn. red.

[Guidance of a trade-union committee on social competition] Rukovodstvo komiteta profsoiuza sotsialisticheskim sorevnovaniem. Moskva, Izd-vo TsSPS Profizdat, 1961. 93 p. (Bibliotechka profsoiuznogo aktivista, no.14) (MIRA 14:11)
(Trade Unions) (Socialist competition)

GAL'TSOV, Aleksey Dmitriyevich; POPOV, A.S., red.; KOROBOVA, N.D., tekhn. red.

[To the trade-union activist group on the establishment of technical standards]Profsoiuznomu aktivu o tekhnicheskom normirovanii. Moskva, Profizdat, 1962. 61 p. (Bibliotechka profsoiuznogo aktivista, no.16(40)) (MIRA 15:8)
(Production standards)

MASKARIN, Aleksandr Vasil'yevich; POPOV, A.S., red.; SHADRINA, N.D., tekhn. red.

[Creative contributions of engineers and workers; from the work practice of mixed brigades in an enterprise] Tvorcheskie vklady inzhnerov i rabochikh; iz opyta raboty kompleksnykh brigad na predpriiatii. Moskva, Profizdat, 1961. 61 p. (MIRA 15:7)

1. Predsedatel' proizvodstvenno-massovoy komissii zavodskogo komiteta Kolomenskogo teplovozostroitel'nogo zavoda im. V.V. Kuybysheva (for Maskarin).

(Kolomna--Diesel engines--Technological innovations)
(Socialist competition)

POPOV, A.S.

Effect of urea peroxide on radiation injury in infusorians. Radiobiologiia 1 no.5:676-683 '61. (MIRA 14:11)
(GAMMA RAYS--PHYSIOLOGICAL EFFECT) (UREA)

SOKOLOVSKIY, V.D., Marshal Sovetskogo Soyuza; BELAYEV, A.I., polkovnik; GASTILOVICH, A.I., doktor voyennykh nauk, prof. general-polkovnik; DENISENKO, V.K., polkovnik; ZAV'YALOV, I.G., general-mayor; KOLECHITSKIY, V.V., general-mayor; LARIONOV, V.V., kand. voyennykh nauk, polkovnik; MYRKOV, G.M., polkovnik; PAROT'KIN, I.V., kand. voyennykh nauk, polkovnik; PROKHOROV, A.A., general-mayor; POPOV, A.S., polkovnik; SAL'NIKOV, K.I., polkovnik; SHIMANSKIY, A.N., polkovnik; CHEREDNICHENKO, M.I., general-mayor; SHCHEGOLEV, A.I., polkovnik; MOROZOV, B.N., polkovnik, red.; KONOVALOVA, Ye.K., tekhn. red.

[Military strategy] Voennaia strategiia. Moskva, Voenizdat, 1962. 457 p. (MIRA 15:7)

(Strategy)

DRAKIN, Aleksey Ivanovich; SOKOL'SKAYA, Zhozefina Markovna, zhurnalist; POPOV, A.S., red.; ZAYTSEVA, L.A., tekhn. red.

[Organizer of mass production work] Organizator proizvodsvenno-massovoi raboty v profgruppe. Moskva, Profizdat, 1963. 43 p. (Bibliotechka profsoiuznogo aktivista, no.22(70)) (MIRA 17:3)

1. Predsedatel' zavodskogo komiteta profsoyuza Elektrostal'skogo zavoda tyazhelogo mashinostroyeniya, Podmoskov'ye (for Drakin).

BELOV, Ivan Vasil'yevich; VYRYPAYEV, Aleksey Mikhaylovich; POPOV, A.S., red.; VLADIMIRSKAYA, L.S., tekhn. red.

[The scientific and technical department of an enterprise in the effort to create new machinery] NTO predpriiatiia v bor'be za novuiu tekhniku. Moskva, Profizdat, 1964. 78 p. (Bibliotechka profsoiuznogo aktivista, no.4(76))

(MIRA 17:3)

Popov, As.

BULGARIA/Chemical Technology. Chemical Products and Their Application. Fats and Oils. Waxes. Soap. Detergents. Flotation Reagents. H

Abs Jour: Ref Zhur-Khim., No 13, 1958, 44705.

Author : Popov As., Mazhdrakov P.
Inst :
Title : Oenothera Lamarckiana Ser. -- A New Oil Crop.

Orig Pub: Dokl. Bolg. AN, 1957, 10, No 2, 141-143.

Abstract: Oil (O) obtained by extraction of crushed seed of the 1955 and 1956 harvest with gasoline (60-70°), with a yield of 22.0-25.8%, has (data in parentheses refer to seed of 1956 harvest) a greenish-yellow color, $n^{25}D$ 1.4760 (1.4763), acid value 2.5 (1.5), saponification value 192.5 (191.6), iodine

Card : 1/2

L 48815-65

ACCESSION NR: AP5008337 S/0115/65/000/001/0039/0039

AUTHOR: Popov, A. S.

6
B

TITLE: Miniature thermostat with a semiconductor-device temperature controller

SOURCE: Izmeritel'naya tekhnika, no. 1, 1965, 39

TOPIC TAGS: thermostat

ABSTRACT: A very brief description and a circuit diagram are presented of a temperature controller based on 3 Zener diodes, 2 transistors, and 2 bridge-type semiconductor rectifiers. The thermostat maintains, in a dry-air chamber, any temperature within 20—120C with an error of ± (0.2—0.5) C. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: IE

NO REF SOV: 000 OTHER: 000

Card 1/1

KOZLOV, Mikhail Rodionovich; PANARIN, Mikhail Mikhaylovich; SOLOV'YEV, Vladimir Georgiyevich; POPOV, A.S., red.; ANDRYEVA, L.S., tekhn. red.

[Collective labor agreement in an enterprise]Kollektivnyi dogovor na predpriiatii. Moskva, Profizdat, 1961. 61 p. (Bibliotechka profsoiuznogo aktivista, no.24) (MIRA 16:3)
(Collective labor agreements)

POPOV, A.S., professor, doktor tekhnicheskikh nauk.

Basic principles for methods of establishing the annual yield of a coal mine and the size of its field. Izv. AN Kazakh. SSR Ser.gor.dela no.3:3-23 '51. (MLRA 9:6)
(Coal mines and mining)

POPOV, A.S.

Labor productivity and coal costs in Karaganda Basin mines. Trudy Inst. gor. dela AN Kazakh. SSR 2:13-23 '57. (MIRA 10:12)
(Karaganda Basin--Coal mines and mining)
(Coal--Costs)

POPOV, A.S.

New paleontological finds in the Kuban. Priroda 44 no.5:119 My '55. (MLRA 8:7)

1. Armavirskiy krayevedcheskiy muzey
(Kuban--Paleontology)

POPOV, A.S.

2779. Khlebnyy vyvoz iz Ikrainy nokanune pervoy mnrovay voyvy. (Kiiev), 1954. 16c. 22cm. (Akad. Nauk Ukr. SSR. Otd-niye obshchestv Nauk.) 1 0 zkz. B.TS-(54-55790)

So: Knizhnaya Letopis, Vol. 2, 1955

GLYANTSEV, Mikhail Petrovich; POPOV, A.S., red.; SHIKIN, S.T., tekhn. red.

[Committee on mass production work] Komissiia po proizvodstvenno-massovoi rabote. Moskva, Izd-vo VTsSPS Profizdat, 1961. 62 p. (Bibliotechka profsoiuznogo aktivista, no.11) (MIRA 14:9)
(Trade unions) (Socialist competition)

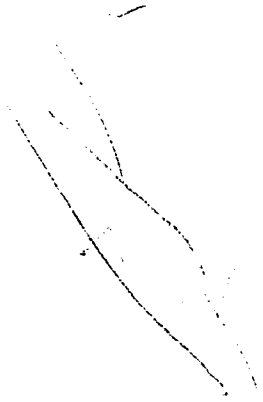
ISAYEV, Konstantin Mikhaylovich; POPOV, A.S., red.; SHIKIN, S.T., tekhn. red.

[How to organize the work of a trade-union group in an enterprise] Kak organizovat' rabotu profgruppy na predpriiatii. Moskva, Izd-vo VTsSPS, Profizdat, 1961. 93 p. (Bibliotechka profsoiuznogo aktivista, no.9) (MIRA 14:9)

(Trade unions)

POPOV, A.S.

Oxidation of thymine and valine and radiation injury in Infusoria. Radiobiologiia 2 no.6:811-818 '62 (MIRA 16:11)



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NEKRASOVA, T.A.; POPOV, A.S., metodist; BOBYLEV, P.G., redaktor; SOKOLOVA, N.N., tekhnicheskiy redaktor

[The "rabbit breeding" pavilion; a guidebook] Pavil'on "Krolikovodstvo"; putevoditel'. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 25 p. (MLRA 9:8)

1. Moscow. Vsesoyuznaya sel'skokhozyaystvennaya vystavka, 1954-
2. Direktor pavil'ona (for Nekrasova)
(Rabbits) (Moscow--Agricultural exhibitions)

Popov, A. S.

AID P - 5601

Subject : USSR/Engineering

Card 1/1 Pub. 107-a - 1/12

Authors : Alov, A. A., Dr. of Tech. Sci., Yu. S. Dolgov, Eng., and A. S. Popov, Eng.

Title : About the nature of the welding and soldering processes

Periodical : Svar. proizv., 12, 1-5, D 1956

Abstract : A brief analysis and comparison of the nature of the welding and soldering of various metals and of the simililarities and differences of the inner metal construction-crystallization which occurs in these processes. Seventeen micro-pictures, 6 Russian references (1936-54).

Institution : Moscow Institute of Aviation Technology

Submitted : No date

SOV/32-25-4-56/71

18(7)

AUTHOR: Popov, A. S.

TITLE: Production of Ground Sections of Soldered Joints for Microstructure Studies (Prigotovleniye shlifov payanykh soyedineniy dlya mikrostrukturnogo issledovaniya)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 4, pp 496 - 497 (USSR)

ABSTRACT: In producing high-quality ground sections of soldered joints difficulties arise because of the different properties of the joint and the metals to be soldered. The joint is, for instance, softer and is thus ground more deeply so that it becomes concave. Moreover, hard particles from the emery paper cling to it. The joint, the metal, and the connecting parts exhibit different electrochemical potentials, which cause an indistinct microstructure when the material is pickled. A special method for the production of high-quality ground sections of joints between copper, brass and low-carbon steels is described. The first step is grinding with different emery papers by which the joint is made concave. Then the metal is dissolved anodically in o-

phosphoric acid until the joint protrudes (about 0.03 -0.05 mm from the metal surface), whereupon the joint is polished with a felt disc until it is level with the metal surface. The ground sections of the soldered joints of copper, brass, and steel are pickled with different reagents (Table). Here, it is necessary first to use a reagent for developing the metal structure, and then a reagent for developing the structure of the soldered joint. There is 1 table.

ASSOCIATION: Moskovskiy aviatsionnyy tekhnologicheskiy institut (Moscow Aviation-technological Institute)

POPOV, A.T.

Working with enthusiasm. Transp. stroi. 14 no.5:33 My '64.
(MIRA 18:11)

POPOV, A.T., inzh.

Universal stand for testing hydraulic systems of excavators.
Stroi. i dor. mash. 10 no.4:34 Ap '65. (MIRA 18:5)

POPOV, A.S.

PHASE I BOOK EXPLOITATION 1188

Akademiya nauk Kazakhskoy SSR, Alma-Ata

Nauka v Kazakhstane za sorok let sovetskoy vlasti (Science in Kazakhstan During the Forty Years of the Soviet Regime) Alma-Ata, Izd-vo AN Kazakhskoy SSR, 1957. 452 p. 6,000 copies printed.

Editorial Board: Satpayev, K.I. (chairman), Baishev, S.B. (resp. ed.); Bazanova, N.U., Polosukhin, A.P., Pokrovskiy, S.N., Zykov, D.A., Chokin, Sh. Ch., Academicians, Kazakh SSR Academy of Sciences; Ed.: Gorshenin, D.S.; Tech. Ed.: Rorokina, A.P.

PURPOSE: This collection of articles is intended for the general reader.

COVERAGE: This is a collection of twenty articles compiled by 24 authors on various aspects of scientific progress in Soviet Kazakhstan. One third of the articles also deal with the progress made in the main fields of industrial endeavor. The articles on the development of science survey the main contributions made in the respective branches by Kazakh scientists, and enumerate and describe the existing scientific institutes, organizations, and universities. A large number of scientists are mentioned and their fields of interest stated.

Card 1/4

VYRYPAYEV, Aleksey Mikhaylovich, zhur.; LUTAY, Nikolay Vladimirovich; POPOV, A.S., red.; ZAYTSEVA, L.A., tekhn. red.

[Primary organization of a scientific and technical society] Pervichnaia organizatsiia nauchno-tekhnicheskogo obshchestva. Izd-vo Profizdat, 1962. 62 p. (Bibliotechka profsoiuznogo aktivista, no.20(44)) (MIRA 15:11)

1. Predsedatel' organizatsii Nauchno-tekhnicheskogo obshchestva Taganrogskogo kombaynovogo zavoda (for Lutay).
(Efficiency, Industrial)

POPOV, A.S.

A case of conversion of thermal energy into mechanical energy.
Fiz. v shkole 14 no.3:42-43 My-Je '54. (MLRA 7:7)
(Heat, Mechanical equivalent of)

GUSEYNOV, Kamran Asadovich; POPOV, A.S., red.; MALEK, Z.N., tekhn.red.

[Instruction and training of the trade union group in an enterprise] Obuchenie i vospitanie profaktiva na predpriiatii. Moskva, Izd-vo VTsSPS Profizdat, 1960. 77 p.
(MIRA 14:4)

1. Predsedatel' Azerbaydzhanskogo respublikanskogo soveta profsoyuzov (for Guseynov).
(Trade unions)

LYSYY, A.; POPOV, A.S., red.; RAKOV, S.I., tekhn.red.

[Trade unions in the struggle for technical progress] Profsoiuzy v bor'be za tekhnicheskii progress. Moskva, Izd-vo VTsSPS Profizdat, 1960. 335 p. (MIRA 14:3)
(Trade unions)

SLUTSKIY, Georgiy Vyacheslavovich; POPOV, A.S., red.; ANDREYEVA, L.S., tekhn. red.

[Disseminating progressive practice in an enterprise] Rasprostranenie peredovogo opyta na predpriiatii. Moskva, Profizdat, 1962. 95 p. (Bibliotechka profsoiuznogo aktivista, no.6(30)) (MIRA 15:5)

(Socialist competition) (Efficiency, Industrial)

POPOV, As.; GUDEVA, V.

Identification and determination of some thiurams and dithiocarbamates with the aid of precipitation and paper chromatography. Izv Inst org khim 1:71-90 '64

USSR/Medicine - Veterinary FD-1305

Card 1/1 : Pub 137-5/22

Author : *Popov, A. T.

Title : Methods of organization of veterinary service in Bulgaria

Periodical : Veterinariya, 9, 14-17, Sep 1954

Abstract : The groundwork for organization of the Bulgarian veterinary service was laid by professor G. Pavlov long before Bulgaria became a People's Republic. Professor Svintsov of the USSR visited Bulgaria and helped in reorganization of the scientific-research veterinary institutes. Academician K. I. Skryabin visited Bulgaria in 1936 and again in 1953: he helped Bulgarian veterinarians in organizing helminthological establishments. The national character of the Bulgarian veterinary service, therefore, reflects Soviet influence. Since West European influence was never too great in Bulgaria, private practice never did develop much there.

Institution : Central Veterinary Bacteriological Institute, Sofia (*Senior Scientific Associate)

Submitted :

POPOV, A.T.

Development of veterinary service in Bulgaria. Veterinariia 31 no.9:14-17 S '54. (MLRA 7:9)

1. Starshiy nauchnyy sotrudnik TSentral'nogo veterinarnogo bakteriologicheskogo instituta v Sofii.
(Bulgariia--Veterinary medicine) (Veterinary medicine--Bulgariia)

POPOV, A.T.

Method of manufacturing spiral-toothed tools. Stan. i instr. 27 no.11:38 N '56. (MLRA 10:1)
(Reamers)

POPOV, A.T.

Mechanized car unloading. Metallurg 3 no.4:9 Ap '58. (MIRA 11:4)
(Loading and unloading) (Railroads, Industrial)

AUTHOR: Popov, A.T. 130-58-4-6/20

TITLE: Mechanised Unloading of Wagons (Mekhanizirovannaya razgruzka vagonov)

PERIODICAL: Metallurg, 1958, Nr 4, p 9 (USSR).

ABSTRACT: This is a brief description of a wagon for light scrap which avoids the use of magnetic cranes for unloading, thus saving electricity and equipment. The load-carrying part of the wagon consists of three boxes hinged at one end to the wagon frame and provided with eyes at their other ends. The eyes are engaged by a hook attached to the crane and the boxes are tipped, discharging their loads. The wagons which were proposed by the author and have been successfully used at the Zakavkazskiy metallurgicheskiy zavod (Transcaucasian metallurgical works) are also suitable for sand and other materials.

Card 1/1

KHUDOBIN, L.V., kand. tekhn. nauk; POPOV, A.T., ved. red.; TOLMACHEV, V.B., inzh., red.; SHVETSOV, G.V., tekhn. red.

[Abrasive finishing of metals; abstracts]Abrazivnaia obrabotka metallov; referativnyi sbornik. Moskva, Filial Vses. in-ta nauchn. i tekhn. informatsii, 1958. 43 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 10. No.M-58-394/51) (MIRA 16:2)

(Grinding and polishing--Abstracts)

MASLOV, Ye.N., prof., doktor tekhn.nauk, red.; POPOV, A.T., inzh., red.; KL'KIND, V.D., tekhn.red.

[Basic problems in heavy duty grinding] Osnovnye voprosy vysokoproizvoditel'nogo shlifovaniia. Pod red. E.N.Maslova. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 195 p. (MIRA 13:3)

1. Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya.
(Grinding and polishing)

S/275/63/000/001/002/035
D469/D308

AUTHOR: Vishnyakov, B. A. and Popov, A. T.

TITLE: Electron gun with tantalum cathode

PERIODICAL: Referativnyy zhurnal, Elektronika i yeye primeneniye, no. 1, 1963, 8-9, abstract 1A 32 (In collection: "Elektron. uskoriteli", Tomsk, Tomskyy un-t, 1961, 203-207)

TEXT: Electron guns (G) in experimental assemblies necessitate the use of cathodes (C) with good emission ability, whose longevity does not depend on the operational vacuum of the system. The C should allow for a large number of disturbances in the hermetic closure of assembly. In consequence, oxide C are not as good for these purposes as are metal, particularly tantalum, C. Foils of tantalum are easily worked and hence C of any configuration can be made. The emissivity of tantalum at 2400°C is >2A/cm^2 and vapor pressure does not exceed 10^{-6} mm Hg. The C is best heated by bombarding it with an electron beam from an auxiliary heater G, for

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instance from a radially disposed tungsten spiral around the C (made from a wire of 0.1 mm diameter). It should be noted that when C is heated by bombardment with an electron beam, the inter-electrode capacity decreases considerably and this is important when operating with short pulses. Schematic drawings are given of two electron G whose parameters are alike: the shapes of G and elec-trodes have been calculated, but the final shape of G electrodes has been chosen experimentally. Photographs of both G are shown. The general G with tantalum C operates at the voltage of 70 kV, with current impulses of 1 A (2 μsec long). The heater G has the working voltage of 4.5 kV and constant current of 0.1 A. The me-thod of fixing the tantalum disc to the electrode is interesting; this is done through an intermediate ring while stretchers made of tantalum strips 0.1 mm thick, are point-soldered to the ring and the disc. This ensures small heat escape to external fixtures. The C are best prepared of strips of tantalum 1 mm thick. This secures uniform heating of C and large thermal inertia of the system, which in turn enables us to obtain high emission stability of a general electron G, without the need for special stabilization of incandes-

S/275/63/000/001/002/035
D469/D308

Electron gun with ...

cence and of heating with auxiliary G. The G electrodes were prepared of steel, nickel and copper. The anode is of copper in order to improve heat dissipation. The edges of electrodes are rounded and polished. Internal elements of G can operate without necessarily cooling them. Heat is conducted to the body which is water- or air-cooled. The principal circuit of G is shown. The heater circuit contains a rectifier to suppress undesirable electron emission from the back of tantalum C. 2 references. [Abstracter's note: Complete translation.]

Card 3/3

62
61

L 11398-63 EWT(m)/BDS/ES(w)-2 AFFTC/ASD/SSD Pab-4
S/120/63/000/002/004/041

AUTHOR: Grishayev, I. A., Kondratenko, V.V., Petrenko, V.V., Popov, A. T., and Skubko, V. A. 19

TITLE: Extractor for linear electron accelerators of up to 90 Mev energy

PERIODICAL: Pribory i tekhnika eksperimenta, March-April 1963, v. 8, no. 2, 26-28

TEXT: The article discusses design, experimental investigation, and adjustment of a system for achromatic parallel extraction of a beam of electrons from a linear accelerator. This system makes possible one or two 90° bends in the beam. The extractor provides at least 50 percent efficiency, is capable of beam-energy mono-chromatization of up to

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L 11398-63 S/120/63/000/002/004/041

Extractor for linear electron...

$\Delta\mathcal{E}/\mathcal{E} = \pm$ 0.003, and has an energy passband of $\Delta\mathcal{E}/\mathcal{E} = \pm$ 0.05 at 50 percent efficiency. Detailed specifications are given. There are two figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN USSR (Physico-Technical Institute, Academy of Sciences Ukrainian SSR)

SUBMITTED: November 29, 1961

jal
Card 2/2

POPOV, A.T., inzh.

Crucible tilting electric furnace. Stroi i dor. mash. 8 no.12:
31 D'63 (MIRA 17:7)

POPOV, A. T., inzh.

Machine tool for bending brake belts. Transpstroi 13 no. 11: 60-61 N '63. (MIRA 17:5)

1. TSentral'naya normativno-issledovatel'skaya stantsiya Orgtransstroya.

L 18360-63
IJP(C)/SSD EWT(l)/EWG(k)/BDS/EEC(b)-2/ES(w)-2 AFFTC/ASD/ESD-3/AFWL/
Pz-4/Pi-4/Pab-4/Po-4 AT
ACCESSION NR: AP3003953 S/0057/63/033/007/0832/0834

AUTHOR: Popov, A.T. 79

TITLE: Equalization of longitudinal electron velocities in modulated beams

SOURCE: Zhurnal tekhnicheskoy fiziki, v.33, no.7, 1963, 832-834

TOPIC TAGS: electron bunching, velocity straggling, buncher

ABSTRACT: In order to test theoretical ideas concerning the influence of space charge effects on the longitudinal velocity straggling of electrons in the bunching region of a velocity modulation buncher, direct measurements of the longitudinal velocity straggling were undertaken. A 5 mm beam of 70 keV electrons with a current of 1 amp was produced by a gun, the cathode of which was heated by electron bombardment. The beam was velocity modulated in a resonant cavity at 2300 Mc with amplitudes up to 15 keV, after which it traversed a region containing a 200 Oe longitudinal magnetic field. Within this region bunching occurred. The diameter of the unmodulated beam did not vary more than 5% within the bunching region. The apparatus was operated with pulses of 2 microsec duration. To measure the longitudinal velocity straggling, a portion of the beam was selected by a movable 0.35 mm diameter aperture and allowed to impinge on a movable fluorescent screen. Im-

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L 18360-63
ACCESSION NR: AP3003953

modiately after traversing the aperture, the electrons were given a transverse velocity component by a pair of deflector plates that were pulsed synchronously with the gun. The deflector pulse was considerably shorter than the gun pulse and was so timed that only those electrons were deflected that had been accelerated during the middle flat portion of the pulse. The deflected electrons traveled in helical paths and, striking the fluorescent screen, produced a spot, the azimuth of which depended on the longitudinal velocity. Because of the velocity modulation, a short arc was produced, the central angle of which was proportional to the velocity straggling. The position of the undeflected beam was marked on the screen by a spot produced by electrons that traversed the apparatus before and after the deflection pulse, and the sector-like region was filled in by electrons that were deflected during the rise and the fall of the deflecting voltage. The velocity straggling was measured at different locations within the bunching region by variously positioning the aperture and the screen. The velocity straggling was found to be independent of the position of the aperture which was moved not only parallel to the beam throughout the bunching region, but also transversely to it. Orig.art. has: 2 formulas and 3 figures.

ASSOCIATION: None

SUBMITTED: 07 June 62	DATE ACQ: 07 Aug 63	ENCL: 00
SUB CODE: PH SD	NO REF SOV: 001	OTHER: 001

Card 2/2

[redacted], M.P., kand.

Praka bami beridor. Stroi. i dor. mash. 9 no.2:36 F '64.
(MIRA 18:7)

POPOV, A.T.

Experience in organizing mixed crews for the repair of excavators. Stroi. i dor. mash. 9 no.5:37-38 My '64. (MIRA 17:6)

POPOV, A.T., inzh.

Modernized washing machine. Transp. stroi. 14 no.2:52 F '64.
(MIRA 17:4)

USSR/ Agriculture

Card 1/1 Pub. 86 - 10/40

Authors : Popov, Atanas, Professor, Memb. Corresp. of Bulgarian Acad. of Sc.

Title : Development of plant cultivation in Bulgaria

Periodical : Priroda 3, 76-77, Mar 1954

Abstract : The achievements of Bulgarian agriculture in the field of tobacco, cotton and vegetable cultivation, since the establishment of the Bulgarian Peoples Republic, are briefly described.

Institution : .....

Submitted : .....

POPOV, ATANAS

Popov, Atanas - Arkhitekturni konstruktsii. (Sofiya) Nauka i izkustvo (1952)
325 p. (Tekhnicheska literatura) (Architectural constructions. Diagrs.)

SO: Monthly List of East European Accessions, Library of Congress, Vol. 2, No. 9, Oct. 1953, Uncl.

POPOV, Atanas.

Development of plant culture in new Bulgaria. Priroda 43 no.3: 76-77 Mr '54. (MLRA 7:3)

1. Chlen-korrespondent Bolgarskoy Akademii nauk. (Bulgaria--Agriculture) (Agriculture--Bulgaria)

POPOV, A. T.

NOSKIN, R.A., kand.tekhn.nauk, red.; BORISOV, Yu.S., inzh., red.; PLETNEV, V.D., inzh., red.; MIKHAYLOVSKIY, V.I., inzh., red.; GOLOV, V.P., inzh., red.; POPOV, A.T., inzh., red.; EL'KIND, V.D., tekhn.red.

[Modernization and repair of machinery plant equipment] Modernizatsiia i remont oborudovaniia mashinostroitel'nykh zavodov. Pod red. R.A.Noskina. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1959. 261 p. (MIRA 13:3)

1. Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. TSentral'noye pravleniye.
(Industrial equipment--Maintenance and repair)

MAKSUNOV, Viktor Aleksandrovich; POPOV, A.V., otv. red.

[Fishes of northern Tajikistan and their commercial use] Ryby Severnogo Tadzhikistana i ikh khoziaistvennoe ispol'zovanie. Dushanbe, Izd-vo AN TadzhikSSR, 1964. 43 p. (MIRA 17:8

ABDUSALYAMOV, Islom Abdurakhmanovich; POPOV, A.V., otv. red.

[Birds of the mountainous Zeravshan Valley] Ptitsy gornogo Zeravshana. Dushanbe, Izd-vo AN Tadzhik.SSR, 1964. 247 p. (MIRA 17:7)

REZONTOV, V.A., kapitan meditsinskoy sluzhby; POPOV, A.V., podpolkovnik meditsinskoy sluzhby, kand.med.nauk; POMOMAREV, P.S., podpolkovnik meditsinskoy sluzhby. Voen.-med. zhur. no.8:39'62. (MIRA 16:9)

Acute form of radiation sickness with the syndrome of predominant affection of the gastrointestinal tract; review of the literature.

(RADIATION SICKNESS) (ALIMENTARY CANAL--DISEASES)

1. POPOV, A. V.

2. USSR (600)

4. Buzzards - Tajkistan

7. Discovery of a honey buzzard in Tajikistan. Soob. TFAN SSSR no. 22, 1950.

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

1. POPOV, A. V.

2. USSR (600)

4. Tajikistan--Sparrows

7. The Passer ammodendri Gould in Tajikistan, Soob. TFAN SSSR, No. 28, 1950.

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

POPOV, A.V.

Habitat of tetraogallus in Tajikistan. Dokl.AN Tadzh.SSR.no.2:53-55 '52. (MIRA 9:9)

1.Institut zoologii i parazitologii AN Tadzhikskoy SSR. Predstavleno chlenom-korrespondentom AN Tadzhikskoy SSR.
(Tajikistan--Partridges)

POPOV, A.V.

Molting of birds under mountain conditions. Trudy AN Tadzh. SSR 21: 135-138 '54. (MLRA 9:12)

1. Institut zoologii i parazitologii imeni akademika Ye.N.Pavlovskogo Akademii nauk Tadzhikskoy SSR.
(Gissar Range--Birds--Physiology)

POPOV, A.V.

Observation of changes in certain instinctive reactions in birds under natural conditions. Trudy AN Tadzh. SSR 21:139-143 '54.
(MLRA 9:12)

1. Institut zoologii i parazitologii imeni akademika Ye.N.Pavlovskogo Akademii nauk Tadzhikskoy SSR.
(Instinct) (Gissar Range--Birds)

POPOV, A.V.

Age of some Visean goniatite facies in the Tien Shan and the conditions governing their formation. Mat. po geol. Tian'-Shania no.4:110-127 '64. (MIRA 17:10)

POPOV, A.V.

Economic importance of certain species of birds of Tajikistan and their attraction to forest stands. Trudy AN Tadzh.SSR 33:177-205 '55. (MLRA 9:8)

(Tajikistan--Birds, Injurious and beneficial)

POPOV, A.V.

POPOV, A.V.

Weapons and methods of commercial hunting of the rock partridge Alectoris kakelik. Izv. Otd. obshchestv. nauk AN Tadzh. SSR no. 8:123-127 '56. (MLRA 9:9)

1. Institut zoologii i parazitologii imeni akademika Ye.N. Pavlovskogo AN Tadzhikskoy SSR. (Partridges)

POPOV, A.V.

Feeding of birds on shallowly planted wheat seed in Badakhshan.
Trudy AN Tadzh.SSR 89:209-215 '58. (MIRA 13:5)

1. Institut zoologii i parazitologii AN Tadzhikskoy SSR.
(Gorno-Badakhshan Autonomous Province--Birds--Food)

POPOV, Arkadiy Vasil'yevich; STAL'MAKOVA, V.A., kand.biolog.nauk, red.; PYATAYEVA, M.F., red.izd-va; FROLOV, P.M., tekhn.red.

[Birds in the Gissar-Karategin area; an ecologico-geographical survey] Ptitsy Gissaro-Karategina; ekologo-geograficheskii ocherk. Pod red. V.A.Stal'makovoi. Stalinabad, Izd-vo Akad.nauk Tadzhikskoi SSR, 1959. 179 p. (MIRA 13:4)
(Kukhistan--Birds)

POPOV, A.V.

Migrations of the stone partridge (Alectoris graeca falki Hart.) in Tajikistan. Trudy Probl. i tem. sov. no.9:169-174 '60. (MIRA 13:9)

1. Institut zoologii i parazitologii Akademii nauk Tadzhikskoy SSR.

(Tajikistan--Partridges) (Birds--Migration)

L 7766-66 EWT(m)

ACC NR: AP5025930 SOURCE CODE: UR/0205/65/005/005/0766/0768

AUTHOR: Popov, A. V.

ORG: None

TITLE: Dynamics of conditioned reflex activity disorders in dogs during acute radiation sickness

SOURCE: Radiobiologiya, v. 5, no. 5, 1965, 766-768

TOPIC TAGS: experiment animal, radiation sickness, irradiation effect, cerebral cortex, conditioned reflex

ABSTRACT: Three groups of 3 adult male dogs each were gamma-irradiated (Co^{60} source, 1326 r/min) with 15, 25, and 50 kr doses to investigate conditioned reflex changes. Following irradiation the animals were placed into test chambers and standard conditioned reflex tests were conducted up to time of near death. Leukocyte counts and survival rates were also determined. For 15, 25, and 50 kr doses conditioned reflex activity changes appear as early as 8 to 24 min following irradiation. For 15 and 25 kr doses inhibition of conditioned reflex activity gradually increases during the first 5 hrs. Then a certain restoration of activity takes place as a result of the compensatory-adaptive mechanisms of the cortex, and in 32 to 47 hrs inhibition of cortex cell

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UDC: 616.001.28:591.51

Card 2/2

L 7766-66

ACC NR: AP5025930

activity starts to develop gradually. For a 50 kr dose inhibition of conditioned reflex activity starts almost immediately. Complete inhibition of conditioned reflex activity develops in 65 to 93 hrs for a 15 kr dose, in 57 hrs to 70 hrs for a 25 kr dose, and in 1.8 to 32 hrs for a 50 kr dose. At the same time animals display clonic and tonic spasms. No conclusions are drawn. Orig. art. has: 1 figure and 1 table.

SUB CODE: 05, 06/ SUBM DATE: 02Jan64/ ORIG REF: 005/ OTH REF: 000

nw

Card 2/2

IGOV, A. V.

Effect of ACTH and adrenaline on the changes in the cholesterol content of the blood in different functional states of the thyroid gland. Probl. endok. i gorm. 11 no.4 92-95 Jl-Ag '65. (MIRA 18:11)

1. Kafedra patologicheskoy fiziologii (zav. - prof. N.T. Shutova) Leningradskogo pediatricheskogo meditsinskogo instituta.

ACC NR: AP6025668 SOURCE CODE: UR/0413/66/000/013/0136/0137

INVENTORS: Sogrishin, Yu. P.; Kobyakovskiy, N. F.; Popov, A. V.

ORG: none

TITLE: A machine for rapid deforming of metals. Class 49, No. 183573

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 136-137

TOPIC TAGS: metalworking, metal press, metal pressing, metal deformation, metal forming

ABSTRACT: This Author Certificate presents a machine for the rapid deforming of metals, using the energy of gas under high pressure. The machine contains a cylinder freely mounted on the directing rods of the base with the help of a higher and a lower lid. The cylinder is divided into two parts--the upper, that serves as a receiver for the high pressure gas, and the lower, that supports the working shaft carrying a ram. To raise the coefficient of utilizing the energy of the expanding gas and to obtain higher rates of deformation, hydraulic cylinders are placed on the lower lid. The rods of these cylinders return the working shaft to its original position. The working shaft is provided with a pneumomechanical lock which holds it in the original position. The pneumomechanical lock may be made in the form of

Card 1/2

UDC: 621.7.044.3.06

ACC NR: AP6025668

a petal-shaped link fixed through a bearing, a joint tongue, and a bearing ring in the body of the cylinder. The link interacts with a conical bearing ring fixed by a split nut on the collar of the working shaft. The motion is imparted by a piston displaced by air under the pressure of, say, 4—6 atm, fed consecutively in the chambers formed by the walls of the cylinder and the piston.

SUB CODE: 13, 11/SUBM DATE: 24Apr63

Card 2/2

L 36133-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)
ACC NR: AP6016314 (N) SOURCE CODE: UR/0182/66/000/001/0023/0025

AUTHOR: Sogrishin, Yu. P.; Kobyakovskiy, N. F.; Popov, A. V.

ORG: none

TITLE: Experimental determination of the basic parameters of a high-velocity press hammer

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 1, 1966, 23-25

TOPIC TAGS: press hammer, forge press, metal pressing, die, mass energy relation, collision

ABSTRACT: The article describes the method and results of determining the velocities and collision energies of the counter-moving parts of a high-velocity press hammer with a maximum impact energy of 8900 kg-m which is represented by a frame and a ram plus accessories. Collision velocity was determined by means of two photodiodes mounted on a bracket affixed to the frame bolster: the moving ram blocked the beam of light illuminating the photodiodes and the change in current density due to this darkening was oscillographically recorded. The change in nitrogen pressure (60-140 kg/cm^2) in the working cylinder was recorded by means of a monometric pickup. Collision energy was determined from the formula $E = mv^2/2 + MV^2/2$, where m and M are the masses of the ram and frame, respectively, and v and V are the velocities of the ram and frame, respectively. (The ram develops a velocity of 20 m/sec and higher.

Card 1/4 UDC: 621.974.001.5