

L 36133-66

ACC NR: AP6016314

The mass of the frame exceeds the mass of the ram by a factor of 8-10 and has a correspondingly lower velocity.) Economic efficiency for high-velocity hammers was determined from the formula: $\eta = E/A_{sp}$, where A_{sp} is the power required by the pump motor per forging cycle, and it was found to be 10%, which is satisfactory considering that $\eta = 7\%$ for hot-stamping crank presses. It was found that the velocity and energy of collision depend on the ram travel, increasing with increasing rate of this travel. The relationship between press-hammer parameters is graphically shown in Fig. 1: ram velocity and collision energy increase with increasing gas pressure in the working cylinder. If both the impact energy required to fabricate a forging and the efficiency of the hammer's impact are known, it is possible, with the aid of this plot, to determine the required gas pressure in the working cylinder. In addition, it is useful to know the dependence of collision velocity (and energy) on ram travel (Fig. 2), particularly in cases where the height of die is relatively large and the ram stroke proves to be shorter than indicated in the specifications: knowledge of this relationship makes it possible to adjust the collision energy. Orig. art. has: 3 figures and 1 table.

Card 2/4

L 36133-66

ACC NR: AP6016314

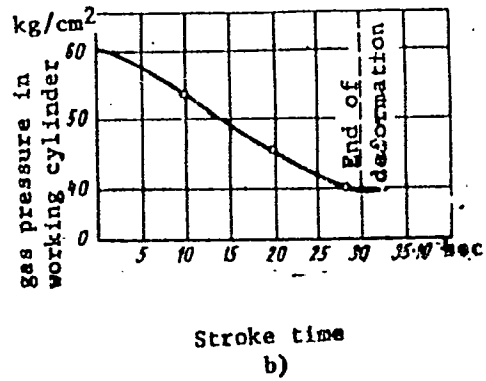
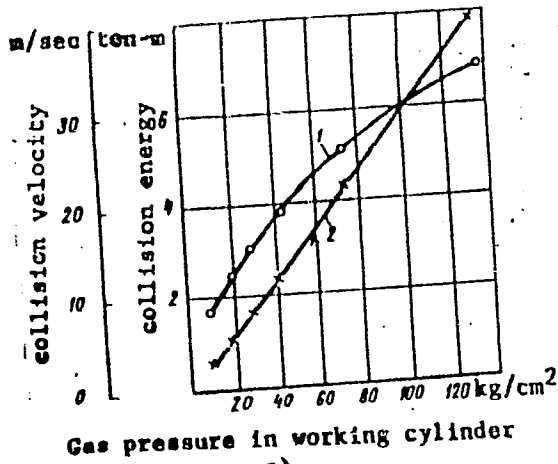


Fig. 1. Graphs of relationship between hammer parameters:
a - Collision velocity and impact energy as a function of nitrogen pressure in working cylinder; b - nitrogen pressure in working cylinder as a function of ram-stroke time;
1 - collision rate; 2 - collision energy

Card 3/4

L 36133-66

ACC NR: AP6016314

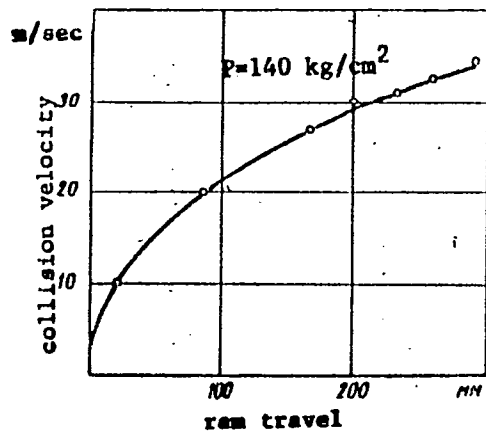


Fig. 2. Collision velocity as a function of ram travel

SUB CODE: 13,11/ SUBM DATE: none/ ORIG REF: 004

Card 4/4 *lll*

L 29365-66

ACC NR: AP6019799

SOURCE CODE: UR/0239/65/051/004/0441/0448

AUTHOR: Radionova, Ye. A.; Popov, A. V.

ORG: Institute of Physiology im. I. P. Pavlov, AN SSSR (Institut fiziologii AN SSSR);
Institute of Evolutionary Physiology im. I. M. Sechenov, AN SSSR, Leningrad (Institut
evolyutsionnoy fiziologii AN SSSR)

TITLE: Electrophysiological study of neurons²² of the cochlear nucleus of the cat

SOURCE: Fiziologicheskij zhurnal SSSR, v. 51, no. 4, 1965, 441-448

TOPIC TAGS: electrophysiology, cat, neuron

ABSTRACT: The reaction of neurons of the cochlear nucleus of cats in response to sound stimuli was studied by determining the electrical activity of the neurons. The distribution of neurons of the cochlear nucleus according to the level of spontaneous activity, the threshold of sensitivity, and the latent period was determined. The distribution of neurons of the dorsal part of the nucleus with respect to these three characteristics differed from that of the neurons of the ventral part. For the majority of neurons, the duration of the response corresponded to the duration of the signal and showed almost no dependence on the intensity of the latter. Some neurons, however, responded by a prolonged impulse discharge of greater duration than the signal; this type of response was due to cyclic connections between the neurons. A curve expressing the relationship between the threshold of the neuron reaction and the duration of the signal was plotted. The authors thank A.M. Markovich for technical assistance in carrying out the work. Orig. art. has: 4

Figures: 1 JPRS / SUBM DATE: 30Dec63 / ORIG REF: 010 / OTH REF: 008
SUB CODE: 06 / UDC: 612.822.3
Card 1/1 dc

KRIZHANSKIY, L.M.; OKHLOBYSTIN, O.Yu.; POPOV, A.V.; ROGOZEV, B.I.

Mössbauer spectra of organotin compounds containing an acyloxy group. Dokl. AN SSSR 160 no.5:1121-1123 P '65.

(MIRA 18:2)

1. Submitted August 25, 1964.

POPOV, A.V.

Armenian mouflon (*Ovis orientalis*) in the Zeravshan Range.

Izv. Otd. biol. nauk AN Tadzh. SSR no.1:112-113 '63.

(MIRA 17:10)

1. Institut zoologii i parazitologii im. akademika Ye.N.
Pavlovskogo AN Tadzhikskoy SSR.

GOLOVANOVA, E.N.; POPOV, A.V.

Observations on natural hybridization of the house
sparrow and the Spanish sparrow. Trudy Inst. zool.
i paraz. AN Tadzh. SSR 22:39-40 '62. (MIRA 15:11)
(Dushanbe region—Sparrows)
(Hybridization)

ABDUSALYAMOV, Islom Abdurakhmanovich; POPOV, A.V., otv.red.;
VINOGRADSKAYA, S.N., red.izd-va; GELLER, S.P., tekhn.red.

[Birds in the valley of Lake Rang-Kul' in the Pamirs]
Ptitsy doliny ozera Rang-Kul' na Pamire. Dushanbe, Izd-vo
Akad. nauk Tadzhikskoi SSR. 1961. 150 p. (Akademia nauk
Tadzhikskoi SSR, Dushanbe, Institut zoologii i parazitologii.
Trudy, vol.21). (MIRA 15:11)

(Rang-Kul' region--Birds)

BOGOLYUBSKIY, G.N.; BURLINOV, I.I.; VINOGRADOV, L.V.; VOZNESENSKIY,
V.V.; DANILYUK, V.S.; ZUEKIN, A.S.; IL'YASHEV, A.S.; KORABLEV,
M.D.; LEBEDEVA, Yu.A.; MAKAROV, Yu.K.; MIROSHNIKOV, I.P.;
NOVICHENKO, I.P.; POPOV, A.V.; SEREBRAKOV, V.A.; VARENNIKOV,
I.S., red.; GODINER, F.Ye., red.; SORKIN, M.Z., tekhn. red.

[Protecting the population from present-day means of
destruction] Zashchita naselenia ot sovremennykh sredstv po-
razhenia; uchebnoe posobie dlia organizatsii DOSAAF. Pod ob-
shchei red. I.S.Varennikova i L.V.Vinogradova. Izd.2., perer.
i dop. Moskva, Izd-vo DOSAAF, 1962. 254 p. (MIRA 16:4)
(Civil defense)

POPOV, A.V.

Siberian ibex with abnormal horns. Trudy Inst. zool.
i paraz. AN Tadzh. SSR 22:87-88 '62. (MIRA 15:11)
(Tajikistan---Ibex)
(Horns)

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POPOV, A.V.

Materials on the reacclimatization of the river beaver in the
Tatar A.S.S.R. Trudy VNIO no.13:200-203 '53. (MIRA 7:5)
(Tatar A.S.S.R.--Beavers) (Beavers--Tatar A.S.S.R.)

POPOV, A. V., Cand Biol Sci (diss) -- "An electrophoretic study of the protein spectrum of blood serum in experimental cattle piroplasmosis". Leningrad, 1960. 15 pp (Leningrad Vet Inst of the Min Agric RSFSR), 300 copies (EL, No 12, 1960, 126)

Country : USSR
Category : CULTIVATED PLANTS. COMMERCIAL. Oleiferous. Sugar-
Bearing.
Abs. Jour. : REF ZHUR-BIOL., 21.1958, NO-96075
Author : Galovskiy, M. I.; Kolomyats, O. K.; Popov, A. V.
Title : Single Seed Sugar Beet

Orig. Pub. : Vestnik s.-kh. nauki, 1957, No. 12, 55-74

Abstract : By means of the selection of single seed fruits and cross-pollinating their offspring 1 specimen of completely single seed sugar beet was obtained in the USSR in 1936. Subsequent crossing with better varieties of multiple seed beet and repeated selection (chiefly individual) for single-seed bearing, rapid ripening, productivity, saccharinity, disease resistance and other important characteristics made it possible to develop the single seed varieties and increase their produc-

Card: 1/3

DEL'VING, Konstantin Yur'yevich; SOKOLOV, Vyacheslav Dmitrievich; POPOV,
A.V., redaktor; MEDRISH, D.M., tekhnicheskiy redaktor.

[Accounting for stores] Uchet i otchetnost' magazina. Moskva, Gos.
izd-vo torgovoi lit-ry, 1955. 143 p.
(Accounting)

MEYSNER, B.A., kand. tekhn. nauk; POPOV, A.V., kand. tekhn. nauk.

Experience in calibrating instruments with wire transducers during
locomotive testing. Vest. TSNII MPS 17 no.4:50-53 Je '58.
(Locomotive--Testing) (Transducers) (MIRA 11:6)

BABKIN, I.A.; BOGOLYUBSKIY, G.N.; BURLINOV, I.I.; VOZNESENSKIY, V.V.;
DANILYUK, V.S.; ZAPOL'SKIY, G.N.; ZUBKIN, A.S.; IL'YASHEV, A.S.;
KIPRIYAN, K.M.; KONDRAT'YEV, P.V.; KORABLEV, M.D.; LEBEDEVA,
Yu.A.; MAKAROV, Yu.K.; MIROSHNIKOV, I.P.; NOVICHENKO, I.P.;
POPOV, A.V.; SEREBRYAKOV, V.A.; KANEVSKAYA, M.D., red.; ANDRIANOV,
B.I., tekhn.red.

[Protecting the public from present-day means of destruction;
a textbook for organizations of the All-Union Voluntary Society for
the Promotion of the Army, Aviation, and Navy] Zashchita naseleniia
ot sovremennykh sredstv porazheniia; uchebnoe posobie dlia organi-
zatsii Vsesoyuznogo dobrovol'nogo obshchestva sodeystviya armii,
aviatsii i flotu. Moskva, Izd-vo DOSAAF, 1958. 334 p. (MIRA 12/4)
(Civil defense)

POPOV, A. V.

94-23

✓ Popov, A. V., *Peredovos gidrometeorologicheskoe biuro*. [A progressive hydrometeorological office.] *Meteorologiya i Gidrologiya*, No. 7:62, July 1956. DWB, DLC—The second order hydrometeorological stations at Voronezh is singled out as an especially progressive station. The workers at this station were efficient and interested in new methods of forecasting etc.; during 1955 studies on the movement of Caspian cyclones and the winter floods of the Upper Don River were made. *Subject Headings: 1. Hydrometeorological stations 2. Voronezh, U.S.S.R.—I.L.D.*

551.579:06

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ok

POPOV, A.V.; SKLYAR, P.T.

Revision of the state standard 3249-46. Bituminous coal,
brown coal, anthracite and oil shale. Methods for sampling
coals from the seam in the course of mining. Sbor.DonUGI
no.18:170-186 '59. (MIRA 13:1)

(Coal--Standards)

(Ores--Sampling and estimation)

AMELIN, A.G.; POPOV, A.V., red.; SHPAK, Ye.G., tekhn.red.

[Production of sulfuric acid from hydrogen sulfide by wet catalysis] Proizvodstvo sernoi kisloty iz serovodoroda po metodu mokrogo kataliza. Moskva, Gos.nauchno-tekhn.izd-vo khim.lit-ry, 1960. 173 p. (MIRA 13:3)

(Sulfuric acid) (Hydrogen sulfide)

POPOV, Anatoliy Vasil'yevich; PESHKOV, V.P., red.; POPOV, V.N.,
tekhn. red.

[School of advanced practices] Shkola peredovogo opyta.
Tambov, Tambovskoe knizhnoe izd-vo, 1963. 26 p.

(MIRA 16:4)

(Tambov Province--~~Swine~~)

IL'YASHENKO, Sergey Mikhaylovich [deceased]; TALANTOV, Aleksey Vasil'yevich; BOLGARSKIY, A.V., doktor tekhn. nauk, retsenzent; EESPALOV, I.V., kand. tekhn. nauk, retsenzent; KLYACHKO, L.A., kand. tekhn.nauk, retsenzent; CHUMACHENKO, B.N., inzh., red.; BONDARYUK, M.M., doktor tekhn. nauk, prof., red.; POPOV, A.V., red.

[Theory and design of direct-flow combustion chambers] Teoriia i raschet priamotochnykh kamer sgoraniia. Moskva, Mashinostroenie, 1964. 305 p. (MIRA 17:12)

NIKONOVA, O.N.; POPOV, A.V.

State of blood serum proteins in patients with malignant neoplasms before and after radiotherapy. Med. rad. 10 no.2:13-16 F '65.

(MIRA 18:6)

1. Radiokhirurgicheskoye otdeleniye Tsentral'nogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta Ministerstva zdravookhraneniya SSSR i kafedra biokhimii Leningradskogo veterinarnogo instituta.

POPOV, A.V.

New Visean Ammonoidea of the Tien Shan. Paleont. zhur. no.2:
35-49 '65. (MIRA 18:6)

1. Institut geologii AN Kirgizskoy SSR.

POPCOV, A.V.

Electrophysiological study of the peripheral neuron characteristics of the auditory system in locusts. Zhur. evol. biokhim. i fiziol. 1 no.3: 239-250 My-Je '65. (MIRA 18:7)

1. Laboratoriya fiziologii neyrena i organov chuvstv Instituta evolyutsionnoy fiziologii i biokhimi imeni Sechenova AN SSSR i laboratoriya fiziologii slukhovogo analizatora Instituta fiziologii imeni Pavlova AN SSSR, Leningrad.

RADIONOVA, Ye.A.; POBOV, A.V.

Electrophysiological study of the neurons of the cochlear nucleus in cats. Fiziol.zhur. 51 no.4:441-448 Ap '65.

(MIRA 18:6)

1. Institut fiziologii imeni Pavlova AN SSSR i Institut evolyutsionnoy fiziologii imeni Sechenova AN SSSR, Leningrad.

POPOV, A.V.

Some forms of the sand relief of the Taukum desert. Vop.geog.Kaz.
no.2:208-215 '57. (MIRA 10:7)
(Tau-Kum Desert--Physical geography)

Popov, A.V.

AUTHORS: Agakhanyants, O.Ye. and Selivanov, R.I. 12-1-21/26

TITLE: None Given

PERIODICAL: Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva, 1958,
1, pp 95 - 98 (USSR)

ABSTRACT: The reviewers criticize a book "The Tadzhik SSR" (Tadzhikskaya SSR) composed by a large collective of authors (D.A. Chumichev, P.N. Ovchinnikov, A.V. Popov, Yu.L. Shchetkin, A. Dzhaliilov, V.A. Kozachkovskiy, B. Kh. Karmysheva, M.R. Rakhimov, I.K. Narzikulov, S.L. Malayeva). This book gives a general picture of Tadzhikistan. A great part of the work is devoted to physico-geographical matters, connecting natural description with economic evaluations.

However, there is a series of deficiencies such as problems of divisions into districts, which are insufficiently covered, wrong descriptions of some natural phenomena and erroneous economic recommendations. Many facts relating to nature and economics are obsolete. On the basis of the mentioned observations the book cannot be recommended to a large circle of readers.

AVAILABLE: Library of Congress
Card 1/1

POPOV, A.V.

Forms of sand reliefs in the lower part of the Ili Basin.
Uch.zap.Kazakh.un. 37 no.4:169-175 '58. (MIRA 15:4)
(Ili Valley (Kazakhstan)--Landforms) (Sand)

POPOV, A.V.

Some topographic forms of the Mynbulak area in the Kara Kum of
the Aral region. Trudy Sekt.geog.AN Kazakh.SSR no.3:215-220
'59. (MIRA 12:7)

(Mynbulak--Topography)

POPOV, A.V.

Relief formation in the Aral Kara-Kum. Trudy Sekt.geog.AN
Kazakh.SSR no.4:187-192 '59. (MIRA 13:4)
(Aral Kara-Kum--Geology, Structural)

POPOV, A.V.

Surface features of the lower part of the Ili Basin. *Trudy*
Sekt.geog. AN Kazakh. SSR no.5:3-32 '59. (MIRA 13:4)
(Ili Valley--Geology, Structural)

POPOV, A.V.

Natural regions of the lower Ili River basin and some
problems involved in their economic utilization. Trudy
Sekt.geog.AN Kazakh. S.S.R. no.6:95-115 '60.
(MIRA 13:7)

(Ili Valley—Physical geography)

POPOV, A. V.

Popov, A. V.

"Investigation of Variations in the Jerking of Steam Locomotives." Min
Railways USSR. All-Union Sci Res Inst of Railroad Transport. Moscow,
1955 (Dissertation for the degree of Candidate in Technical Science)

SO: Knizhnaya letopis' No. 27, 2 July 1955

ZOL'NIKOV, S.S., kandidat tekhnicheskikh nauk; MEYSNER, V.A., kandidat tekhnicheskikh nauk; POPOV, A.V., kandidat tekhnicheskikh nauk. TSKIPURISHVILI, V.B., kandidat tekhnicheskikh nauk.

Principal results of tests of the strength of the VL23 electric locomotive. Vest.TSNII MPS no.2:18-20 Mr '57. (MLRA 10:4)
(Electric locomotives)

MEL'NIK, D.M.; KOMAROV, A.A.; ANTONOV, F.I.; OBUKHOV, L.M.; LYAKHOVICH, V.B.;
POPOV, A.V., inzh., red.; BOBROVA, Ye.N., tekhn. red.

[Mechanization of snow protection and removal on railroads]
Mekhanizatsiia snegouborki i snegozashchita na zheleznykh
dorogakh. Moskva, Gos.transp.zhel-dor.izd-vo. 1959. 112 p.
(Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut
zheleznodorozhnogo transporta. Trudy, no.168) (MIRA 12:4)
(Railroads--Snow protection and removal)

MEYSNER, B.A., kand.tekhn.nauk; POPOV, A.V., kand.tekhn.nauk; TSKIPURISH/ILI,
V.B., kand.tekhn.nauk

Dynamic and strength characteristics of six-axle electric
locomotive trucks. Vest.TSNII MPS 18 no.2:26-31 4r '59.
(MIRA 12:6)

(Electric locomotives)

MINKIN, I.B. [deceased]; SILAYEV, N.I.; KRIMNUS, G.Kh.; NAUMOV, G.K.;
GENESIN, A.M.; GRINENKO, Ya.F.; POPOV, A.V., inzh., red.; KHITROV,
P.A., tekhn.red.

[Costs of transportation on industrial railroads] Voprosy
sebestoimosti perevozok na promyshlennom zheleznodorozhnom
transporte. Moskva, Gos.transp.zhel-dor.izd-vo, 1960. 175 p.
(Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut
zheleznodorozhnogo transporta. Trudy, no.185). (MIRA 13:11)
(Railroads, Industrial--Cost of operation)

ZOL'NIKOV, S.S., kand.tekhn.nauk; POPOV, A.V., kand.tekhn.nauk; SHESTAKOV,
V.N., kand.tekhn.nauk

Dynamic testing of series P and ChS2 electric locomotives.
Vest.TSNII MPS 19 no.6:21-26 '60. (MIRA 13:9)
(Electric locomotives--Testing)

DOLMATOV, A.A.; POPOV, A.V., red.; VASIL'YEVA, N.N., tekhn.red.

[Trucks with hydraulic shock absorbers for passenger cars]
Telezki s gidravlicheskim dempferami dlia passazhirsikh
vagonov. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va
putei soobshchenia, 1961. 23 p.

(MIRA 15:2)

(Car trucks (Railroads))

ZAROCHEVSEV, G.V.; POPOV, A.V., inzh., red.; USENKO, L.A., tekhn.red.

[Ultrasonic control of the depth of rail surface hardening]
Ul'trazvukovoi kontrol' glubiny poverkhnostnoi zakalki rel'sov.
Moskva, Vses.izdatel'sko-poligraf. ob"edinenie M-va putei soob., 1961.
49 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut
zheleznodorozhnogo transporta, Trudy, no.216). (MIRA 14:8)
(Railroads--Rails) (Ultrasonic testing)

ANDRIYEVSKIY, S.M.; POPOV, A.V., inzh, red.; KHITROVA, N.A., tekhn.red.

[Side wear of rails on curves] Bokovoi iznos rel'sov na krivykh.
Moskva, Vses. izdatel'sko-poligr. ob"edinenie ~~m~~-va putei soob.,
1961. 126 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii
institut zheleznodorozhnogo transporta. Trudy, no.207).

(MIRA 14:5)

(Railroads--Rails)

VEDENKIN, S.G., prof.; SINYAVSKIY, V.S., kand. tekhn. red.;
MOISEYEV, I.A., kand. tekhn.nauk; POPOV, A.V., red.;
DROZDOV, N.D., tekhn.red.

[Aluminum alloys for the rolling stock] Aluminievye splavy
dlya podvizhnogo sostava. Pod red. S.G.Vedenkina. Moskva,
Transzheldorizdat, 1962. 41 p. (MIRA 16:3)

i. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut
zheleznodorozhnogo transporta.
(Railroads--Rolling stock) (Aluminum alloys)

BORODAY, S.M., kand.tekhn.nauk; SOKOLOV, P.P., inzh.; POPOV, A.V., inzh.,
red.; BOBROVA, Ye.N., tekhn.red.

[Analysis and means for improving the system of repairing freight
cars] Analiz i puti sovershenstvovaniia sistemy romonta gruzovykh
vagonov. Moskova, Vses. izdatel'sko-poligr. ob"edinenie M-va
putei soobshcheniia, 1962. 97 p. (Moscow. Vsesoiuznyi nauchno-
issledovatel'skii institut zheleznodorozhnogo transporta. Trudy,
no.236).

(Railroads--Freight cars)
(Railroads--Maintenance and repair)

KIST'YANTS, L.K.; POPLAVSKIY, A.N.; SPIRIN, A.N.; ZOLOTUKHIN, V.N.;
PAVLENKO, I.K., inzh., retsenzent; POPOV, A.V., inzh.,
red.; BOBROVA, Ye.N., tekhn. red.

[Depot forging furnaces operated with liquid fuel, natural,
and liquefied gas] Depovskie kuznechnye gorny na zhidkom
toplive, prirodnom i szhizhennom gazakh. Moskva, Trans-
zheldorizdat, 1963. 29 p. (MIRA 16:7)

(Forge shops--Equipment and supplies)
(Railroads--Repair shops)

DOLMATOV, A.A., kand. tekhn. nauk; KUDRYAVTSEV, N.N., kand. tekhn. nauk;
SHADUR, L.A., doktor tekhn. nauk, retsenzent; POPOV, A.V. inzh., red.;
VASIL'YEVA, N.N., tekhn. red.

[Dynamics and strength of four-axle railroad tank cars.]
Dinamika i prochnost' chetyrekhosnykh zheleznodorozhnykh
tsistem. Moskva, Transzheldorizdat, 1963. 122p. (Moscow.
Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorozhnogo
transporta. Trudy, no.263).

(MIRA 16:11)

POPOV, Georgiy Georgiyevich, kand.tekhn.nauk; USOV, Anatoliy Mikhaylovich, kand.
tekhn.nauk; POPOV, A.V., inzh., red?; VERINA, G.P., tekhn.red.

[Investigating the fatigue strength of steel] Issledovanie
ustalostnoi prochnosti stali. Moskva, Gos.transp.zhel dor.izd-vo.
1958. 130 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii
institut zheleznodorozhnogo transporta. Trudy, no. 159)
(MIRA 12:1)

(Steel--Testing)

KAPYRIN, G.I., kand.tekhn.nauk, otv.red.; POPOV, A.V., red.; KOTLYAKOVA,
O.I., tekhn.red.

[Metallurgy; collection of articles] Metallurgiya; sbornik
statei. Leningrad, Gos.soiuznoe izd-vo sudostroit.promyshl.
Vol.1. 1958. 177 p. (MIRA 12:9)
(Steel) (Titanium)

L 16604-65 EWT(d)/EAT(m)/EWA(d)/EWP(r)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(1) Pf-h
ACCESSION NR: AT4048351 ASD(a)-5/ASD(m)-3 JD/S/3000/64/000/008/0043/0057

HW

AUTHOR: Sogrishin, Yu. P. (Candidate of technical sciences); Suvorov, F. G. (Engi- *BT*
18
neer); Obyakovskiy, N. F. (Engineer); Popov, A. V. (Engineer)
TITLE: Determination of the basic parameters of machines for high-velocity deformation
of metals

SOURCE: Moscow. Eksperimental'nyy nauchno-issledovatel'skiy institut kuznechno-
pressovogo machinostroyeniya. Nauchnyye trudy*, no. 8, 1964. Novoye v kuznechno-
sntampovochnom proizvodstve (Latest developments in the forging industry), 43-57

TOPIC TAGS: metal deformation, cold pressing, hot pressing, ram velocity, impact
efficiency

ABSTRACT: The paper discusses the results of an investigation of how to select the type,
construction and parameters of a machine for high-velocity deformation of metals. *14A*
A special experimental instrument was designed with a drive supplied by exploding a gun-
powder charge. The machine was used to determine the dependence of the velocity of
the ram on the gas pressure, and also to investigate the stability of the ram velocity (im-
pact energy) for constant charging conditions and to determine the impact efficiency.
Advantages and shortcomings of the explosion drive and the effect of high-velocity impact
on the durability of the instrument were examined. Cold and hot pressing was employed,

Cont 1/2

L 16604-65
ACCESSION NR: AT4048351

4

and various alloys and steels were tested at deformation rates of 25, 50 and 100 m/sec. Ram velocities before impact and gas pressures were measured and simultaneously recorded on oscillograms. The special methods for making these measurements are described. A ram weighing 3 kg and suitably suspended on rods having a shear strength of 700, 1350 and 2600 kg, and gunpowder charges weighing 3, 5, 6, 8 and 10 grams were used. The experiments showed that the velocity of the ram increases almost proportionally with the gunpowder charge. Thus, the ram velocities varied from 20-30 m/sec to 100 m/sec for gunpowder charges increasing from 3 to 10 g; the gas pressure varied within the limits of 15-180 atm. The impact efficiency was found to be within the interval 0.82-0.98. "Engineer V. M. Stepanov, Engineer V. Ya. Moroz and Technician I. Ye. Belova also took part in the work." Orig. art. has: 5 figures, 1 table and 6 formulas.

ASSOCIATION: Eksperimental'ny*y nauchno-issledovatel'skiy institut kuznechno-pressovogo mashinostroyeniya, Moscow (Experimental Scientific Research Institute of Forging Machinery)

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, AS

NO REF SOV: 002

OTHER: 002

Card 2/2

L 39757-65 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/
EWP(b)/EWP(l)/EWA(c) Pf-4 JD/HW
ACCESSION NR: AP4047432 S/0182/64/000/010/0025/0028

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

TITLE: Power computation of high-speed hammers

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 10, 1964, 25-28

TOPIC TAGS: high speed hammer, low workability, metal, alloy, die design,
low pressure gas, impact energy, impact velocity, ram diameter, adiabatic state

ABSTRACT: By means of high-speed drop forging it has become possible to form
metals and alloys with a low workability as well as produce intricately shaped
parts with small drafts. At the same time great accuracy of dimensions and ex-
cellent surface finish are secured. However, the dies have to work at minimum
velocities of 20 m/sec and various die designs are currently in use. The authors
propose the computation of four types of pneumatic hammers (fig. 1). The ram
may be set into motion by different systems such as additional compressed gas
(design I and IV), an instantaneous release of low-pressure gas from chamber B
(diagram II) or a mechanical device that frees the ram (diagram III). The intro-
Card 1/43

L 39757-65

ACCESSION NR: AP4047432

0

ductory parameter for the proposed computation is the required impact energy E and the maximum impact velocity v . The ram diameter D is dependent on the required impact energy E . The authors proceed under the assumption that the quantity of ram and frame movement is equal and that the changes of the state of gas are of adiabatic nature. After introducing coefficient n expressing the losses associated with the presence of a membrane and other losses, the final equation reads:

$$E = \eta \frac{\lambda p_1 F_0 H_1}{k-1} \left[1 - \left(\frac{H_1}{H_1 + l} \right)^{k-1} \right] - \frac{p_1 F_0 H_1}{k-1} \left[\left(\frac{H_1}{H_1 - l} \right)^{k-1} - 1 \right]. \quad (1)$$

After finding the hammer parameters under (1) the masses of the impact parts remain to be determined as well as the maximum impact velocity v which is derived from

$$v = v_1 + v_2$$

Card 2/4

L 39757-65

ACCESSION NR: AP4047432

The computation holds for all the proposed designs. Orig. art. has: 4 figures,
1 table, 34 equations.

ASSOCIATION: None.

SUBMITTED:00

ENCL: 01

SUB CODE: ~~MM~~, IE

NR REF SOV: 000

OTHER: 000

Card 3/4

E-15098-65 EWT(m)/EWA(d)/ENP(i)/ENP(b) FI-4/Pad IJP(c)/RAEM(e)/SSD/
AFNL/ASD(f)-2/ASD(m)-3/AFMD(c)/AFTC(p) MSN/JD/HW/JG
ACCESSION NR: AP4049116 S/0182/64/000/011/0009/0011

AUTHOR: Sogrishin, Yu. P.; Popov, A. V.; Moroz, V. Ya.

TITLE: Effect of high deformation rates on ductility in the upsetting of metals

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 11, 1964, 9-11

TOPIC TAGS: aluminum alloy, magnesium alloy, beryllium alloy, titanium alloy, carbon steel, stainless steel, tool steel, ductility, deformation rate, temperature effect

ABSTRACT: To determine the effect of high deformation rates on ductility, several industrially important Al, Mg, Ni, Ti, and Be alloys and steels were subjected to cold and hot explosive upsetting at rates of 25, 50, and 100 m/sec. In some experiments, the impact energy (930, 3650, or 14,700 j) of the striking head greatly exceeded that necessary for deforming the specimen. In other experiments, the impact energy of the striking head was calculated to deform the specimens before the first signs of failure had appeared. Experiments showed that increasing the deformation rate to 100 m/sec significantly.

Card 1/2

L 15998-65

ACCESSION NR: AP4049116

affects the ultimate deformation of ductile metals and alloys at room temperature. In their reaction to an increase in the deformation rate, the metals investigated can be divided into three groups, according to which the ductility of 1) AK6, AK8, AMg6, and AB aluminum alloys increases 15—20%, 2) Kh18N9T [AISI 321] stainless steel, EI437A alloy [AISI Nimonic 80A], and VT1 titanium alloy decreases by 40%, and 3) construction and tool steels, remains unchanged. In metals which have low ductility at low deformation rates, ductility remains unchanged with an increase in the deformation rate. In upsetting metals heated to their upsetting temperatures, ductility usually does not decrease and, in most cases, is practically unlimited (the ultimate deformation exceeds 90—95%). An exception are the nickel-based, heat-resistant alloys, whose ductility decreases slightly with an increase in the deformation rate. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM, AS

NO REF SOV: 003
Card 2/2

OTHER: 000

ATD PRESS: 3146

L 60217-65 EWT(d)/EWT(m)/EWA(d)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(1)/EWA(c)
Pf-4 JD/HW
ACCESSION NR: AP5019099 UR/0286/65/000/012/0115/0115

AUTHORS: Sogrishin, Yu. P.; Kobyakovskiy, N. F.; Popov, A. V.; Kosovtsov, S. S.
Goncharov, L. V. 36
B

TITLE: A pneumatic hammer. Class 49, No. 172172

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 12, 1965, 115

TOPIC TAGS: pneumatic device, metal forming, compressed gas

ABSTRACT: This Author Certificate presents a pneumatic hammer for high speed metal forming. The hammer has a cylinder divided into a working and a receiving chamber, both filled with a gas under high pressure. The chamber contains a baffle with an opening through which high-pressure gas is fed into the working chamber (see Fig. 1 on the Enclosure). To utilize the high-pressure gas energy more fully, the baffle is provided with a cylindrical protrusion with ducts cut in its lateral surface. These ducts are used to regulate the high-pressure gas feed by being closed with a rod. A cylindrical recess is provided for receiving the protrusion at the extreme (upper) position of the rod. Orig. art. has: 1 sectional drawing.

Card 1/3

L 60217-65

ACCESSION NR: AP5019099

ASSOCIATION: none

SUBMITTED: 03Mar62

ENCL: 01

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

Card 2/3

L 60217-65

ACCESSION NR: AP5019099

ENCLOSURE: 01

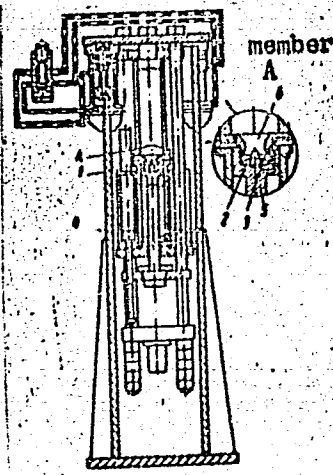


Fig. 1. 1- baffle; 2- cylindrical protrusion; 3 and 4- ducts;
5- rod; 6- cylindrical recess

Card *3/3*

L 44198-66 EWT(m)/EWP(j) IJP(c) RM

ACC NR: AP6015654 (A) SOURCE CODE: UR/0413/66/000/009/0068/0069

INVENTOR: Popov, A. V.; Stukalev, G. K.

13
B

ORG: none

TITLE: ^b Continuous forming of ^b rubber hose with wire spirals. Class 39, No. 181262 [announced by the Volga Branch, Scientific Research Institute for the Rubber Industry (Volzhskiy filial Nauchno-issledovatel'skogo instituta rezinovoy promyshlennosti)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 68-69

TOPIC TAGS: rubber hose, rubber ~~hose forming~~ *working machinery*, rubber *product*

ABSTRACT: This Author Certificate introduces a method in which rubber hose with wire spirals is formed continuously by pressing the rubber mixture around the spiral in the head of an extruder on a stationary pole. To increase the forming rate of the hose and to improve its quality, the wire spiral is produced with a given pitch and tension of

Card 1/2

UDC: 678.027.3:621.643.33

Card 2/2

L 26571-66 EWT(m)/EWA(d)/EWP(t)/ETI/EWA(h) IJP(c) JD
ACC NR: AP6C17354 SOURCE CODE: UR/0231/65/000/007/0020/0024

AUTHOR: Popov, A. V. (Candidate of technical sciences)

21
B

ORG: none

TITLE: Dynamic resilience of leaf springs 4

SOURCE: Moscow, Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta, Vestnik, no. 7, 1965, 20-24

TOPIC TAGS: spring, locomotive engineering

ABSTRACT: A method is presented for calculating the dynamic resilience of spring systems containing leaf springs and dry friction shock absorbers; the influence of the friction on the auto-oscillation frequency of such systems is demonstrated. The author concludes: 1. Leaf spring resilience can be varied by varying the relative friction coefficients; 2. the method in the article can determine the main characteristics determining the behavior of a leaf spring system; 3. the dynamic resilience of leaf springs is often much greater than the static resilience. Because of increased stiffness caused by increased dry friction with time, leaf springs cannot be recommended for locomotive suspension; 4. the methods for testing springs according to GOST standard 1425-62 do not allow the main characteristics of the springs to be correlated, and should be changed. Orig. art. has: 4 tables, 3 figures, and 13 formulas. [JPRS]

SUB CODE: 33 / SJEM DATE: none / ORIG REF: 005
Card 1/1 UDC: 625.2.012.853.001.24

2

VOYUTSKIY, Sergey Sergeevich, professor, doktor khimicheskiy nauk;
SHTARKH, Bella Vladimirovna, kandidat tekhnicheskiy nauk; TUMARKIN,
D.I., redaktor; POPOV, A.V., redaktor; NEKRASOVA, O.I., tekhnicheskiy redaktor

[Physics and chemistry of film formation processes in high polymer dispersion] Fiziko-khimiya protsessov obrazovaniya plenok iz dispersii vysokopolimerov. Moskva, Gos. nauchno-tekhn. izd-vo Ministerstva promyshl. tovarov shirokogo potrebleniya SSSR, 1954. 174 p. (MLRA 8:3)
(Film (Chemistry))

VINOGRADOV, Yu.G.; GREYL', Ye.A.; KRAYCHIK, M.M.; SHLYAPIN, V.B., kand.tekhn.
nauk; POPOV, A.V., inzh.red.; KHITROV, P.A., tekhn.red.

[Methods of welding quality control] Metody issledovaniia
kachestva svarki. Moskva, Gos.transp. shel.-dor.izd-vo, 1959.
132 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut
zheleznodorozhnogo transporta. Trudy, no.175) (MIRA 12:8)
(Welding--Quality control)

POPOV, A.V., inzh.

Technical requirements of coals from the Lvov-Volyn' region
and lignites from the Ukraine according to the type of demand.
Sbor. DonUGI no.25:36-44 '62. (MIRA 16:6)

(Lvov-Volyn' Basin—Coal)
(Ukraine—Lignite)

DUBOVOY, Anatoliy Aleksandrovich; POPOV, Aleksandr Vasil'yevich;
NIKITIN, G.M., doktor tekhn. nauk, red.; KAN, P.M., red.

[Electric propelling machinery; servicing and maintenance]
Elektrogrebnye ustanovki; obsluzhivanie i ukhod. Pod red.
G.M.Nikitina. Moskva, Transport, 1965. 63 p.
(MIRA 18:12)

PHASE I BOOK EXPLOITATION

SOV/6426

Bogolyubskiy, G. N., I. I. Burlinov, L. V. Vinogradov, V. V. Voznesenskiy,
V. S. Danilyuk, A. S. Zubkin, A. S. Il'yashev, M. D. Korablev, Yu. A.
Lebedeva, Yu. K. Makarov, I. P. Miroshnikov, I. P. Novichenko, A. V.
Popov, and V. A. Serebryakov

Zashchita naseleniya ot sovremennykh sredstv porazheniya; uchebnoye
posobiye dlya organizatsii DOSAAF (Protection of the Population From
Modern Means of Destruction; Handbook for DOSAAF Organizations)
2d ed., rev. and enl. Moscow, DOSAAF, 1963. 254 p. 450,000 copies
printed.

Sponsoring Agency: Vsesoyuznoye ordena krasnogo znameni Dobrovol'noye
obshchestvo sodeystviya armii, aviatsii i floty.

Eds. (Title page): I. S. Varennikov and L. V. Vinogradov; Compilers: M. D.
Korablev and Yu. A. Lebedeva; Ed.: F. Ye. Godiner; Tech. Ed.: M. Z.
Sorkin.

Card 1/p

41318

S/057/62/032/009/001/014
B125/B186

AUTHORS: Popov, A. V., Smirnov, P. V., and Shukeylo; I. A.

TITLE: Magnetic deflector

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 9, 1962, 1037 - 1039

TEXT: The authors constructed and tested a magnetic deflector which can be used in the injection systems of cyclic accelerators or in strong-focusing cyclotrons for inflecting the beam into the toroidal chamber. This magnetic deflector (Fig. 1) is 30 cm long and consists of an iron core and of two plane parallel rails. These are flown through by currents of equal strength but opposite direction and constitute a winding connected to the power source. The beam is deflected through a given angle within the space enclosed by the horizontal rails and the vertical plane surfaces of the core. The iron core renders the field within the deflector homogeneous if $b/d \ll 1$. b is the height of the central current-carrying part of the rail. The outer rail has the same effect even if this condition is not fulfilled. The scattered field of the inner current is compensated by the field of the current in the outer rail. The deflector is cooled by water flowing through pipes. An 800-a current in the rails induces a magnetic
Card 1/3

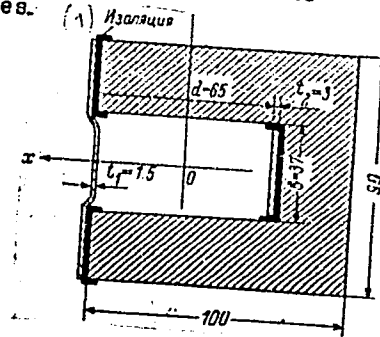
Magnetic deflector

S/057/62/032/009/001/014
B125/B186

field of 272 oe in the gap. The field is homogeneous within $\pm 0.5\%$ for the greater part of the aperture. The defocusing effect of the scattered field is easily compensated by a constant field gradient in the deflector. The deviation of the field relatively to that at the center of the deflector increases linearly with x (Fig. 3) when iron shims (wedges 6 cm long and 1.5 mm thick in the center of the gap are fixed to the surfaces of the upper and the lower pole. Fig. 4 shows the field outside the deflector (in relation to the field inside). When used for deflecting relativistic electrons the deflector described is equivalent to an electrostatic one of the same size with 80 kv/cm. There are 4 figures.

SUBMITTED: September 21, 1961

Fig. 1. Cross section of the magnetic deflector.
Legend: insulation.



SKUBACHEVSKIY, Gleb Semenovich; TUMANSKIY, S.K., doktor tekhn.
nauk, retsenent; ZHIRITSKIY, G.S., doktor tekhn. nauk
prof., retsenent; STRUNFIN, V.A., kand. tekhn. nauk
dots., retsenent; SHTOLA, A.V., prof., nauchn. red.;
POPOV, A.V., red.

[Aircraft gas turbine engines; design and construction of
parts] Aviatsionnye gazoturbinnye dvigateli; konstruktsiia
i raschet detalei. Izd.2., perer. i dop. Moskva, Mashino-
stroenie, 1965. 451 p. (MIRA 19:1)

1. Chlen-korrespondent AN SSSR (for Tumanskiy).

TYUTYUNOV, Vladimir Alekseyevich; LOVINSKIY, Semen Isaakovich; MOSOV,
M.V., dots., retsenzent; SPUSTOV, L.L., inzh., retsenzent;
POPOV, A.V., inzh., red.

[Aircraft engines] Aviatsionnye dvigateli. Moskva, Mashino-
stroenie, 1964. 367 p. (MIRA 17:10)

1. Moskovskiy aviatsionnyy institut (for Mosov).

LEVIN, A.N.; POPOV, A.V.

Use of plastics in the friction units of rubber processing
rolls. Kauch. i rez. 23 no.10:36-40 O '64. (MIRA 18:2)

1. Volzhskiy filial nauchno-issledovatel'skogo instituta
rezinovoy promyshlennosti.

A

L 9223-66 EWT(m)/EWP(v)/EWP(j)/T/EWP(L)/EWP(L)/EWP(L)/EWA(c)

ACC NR: AF6001095 JD/WJ/HM/RM SOURCE CODE: UR/0136/65/000/012/0048/0049

AUTHOR: Parfenteva, N. I.; Frenkel', R. Sh.; Popov, A. V.; Kuz'mina, E. A.

ORG: Volga Branch of the Scientific Research Institute of the Rubber Industry (Volzhskiy filial Nauchno-issledovatel'skogo instituta rezinovoy promyshlennosti)

TITLE: Bonding insulation rubber to copper

SOURCE: Kauchuk i rezina, no. 12, 1965, 48-49

TOPIC TAGS: rubber to copper bonding, butyl rubber, copper, adhesive, adhesive bonding, metal bonding

ABSTRACT: The authors have developed an improved method for bonding butyl rubber to copper, involving thorough cleaning of the metal surface and use of two adhesives. The copper surface is shot blasted, vent degreased, and treated at 70-80C with ultrasound in a special electrolyte bath (sulfuric acid, 500 g/l; OP-7 emulsifier, 30 g/l; thiourea, 5 g/l). The washed and dried copper surface is covered with a layer of BF-2 phenol-formaldehyde resin which is cured at 150C for 30 min. The resin is then coated with Leuconat adhesive. This is followed by application of freshly milled butyl rubber on the copper surface and vulcanization in a press. The adhesion strength of the system varies from 19 to 40 kg/cm² depending on ambient temperature and aging time. The shear strength is 40 to 45 kg/cm at 20C.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002/ ATD PRESS: 4159

Card 1/1

UDC: 678.029.42

DAL', Konstantin Konstantinovich; ~~AKA~~, A.A.; etv. red.;
ABUSALYMOV, I.A., etv. red.

(Manual for workers of anatomical and zoological museums
and departments of biology; *Fonchie nlia rabotnikov
anatomo-zoologicheskikh muzeev i kabinetov biologii. Luchanie,
Izd-vo MI Tuzhnikskoi SSSR, 1965. 98 p. (MIA 18:9)*

POPCOV, A.V.

Life cycle of louse flies *Lipoptena cervi* L. and *Stenapteryx
hirundinis* L. (Diptera, Hippoboscidae). Ent. obozr. 44 no.3:
573-583 '65. (MIRA 18:9)

1. Kafedra zoologii bespozvonochnykh Leningradskogo gosudarst-
vennogo universiteta, Leningrad.

POPOV, Anatolii Vasil'yevich; CHERNIK, R.I., red.; POPOV, V.N.,
tekh. red.

Anatolii Tikhonovich Asotikov. Tambov, Tambovskoe knizhnoe
izd-vo, 1960. 17 p. (MIRA 16:3)

(Asotikov, Anatolii Tikhonovich)
(Rzhaksa District—Agricultural workers)

ЕРОПОВ, А.Я., канд.сел'скохозяйственных наук; ПАСЕЧНИК, А.И.

Increasing the butterfat content in pure breeding. Zhivot-
novodstvo 23 no.6:49-52 Je '61. (MIRA 16:2)

1. Khar'kovskiy zooveterinarnyy institut. 2. Starshiy
sootekhnik uchebnogo khozyaystva "Progress". Khar'kovskogo
zooveterinarnogo instituta (for Pasechnik).
(Dairy cattle breeding)

POPOV, Aleksey Yakovlevich; KOSTINSKIY, D.N., redaktor; NOGIN, N.I.,
tekhnicheskiy redaktor.

[Trip through India] Poesdka po Indii. Moskva, Gos. izd-vo
geogr. lit-ry, 1956. 45 p. (MIRA 9:6)
(India--Description and travel)

POPOV, A.Ya., dots.

Method for an objective appraisal of the state of the gastric mucosa [with summary in English]. Vest.rent. i rad. 33 no.2:12-18
Mr-Apr '58. (MIRA 11:6)

1. Iz kafedry rentgenologii (zav. - prof. V.I.Sobolev) Gosudarstvennogo ordena Lenina instituta usovershenstvovaniya vrachey imeni S.M.Kirova (dir. - prof. N.I.Blinov)
(STOMACH, anat. & histol.
mucous membrane, x-ray daterm. of relief pattern (Rus))

POPOV, A. YA. Doc Cand Agr Sci -- (doss) "Effectiveness of
the industrial interbreeding of ~~the~~ big white and ~~the~~ "Livenskiy" breed
of ^{hog} pigs in sovkhoses of the Khar'kov Sugar Trust." Khar'kov, 1957.
15 pp 20 cm. (Min of Agriculture USSR. Khar'kov zootechnical Inst),
100 copies
(KL, 21-57, 104)

Translator's note: An explanation of this Soviet breed of pigs
can be found in Agricultural Encyclopedia, 1956 (Moscow), Vol 5, p 216

USSR / Farm Animals. Swine

Q-4

Ab's Jour: Ref Zhur-Biol., No 3, 1958, 12136

Author : Popov A. Ya.

Inst :

Title : On the Advantages of Fattening Hogs for Bacon (O preimushchestvakh bekonnogo otkorma sviney)

Orig Pub: Svinovodstvo, 1957, No 3, 26-28

Abstract: Tests which were carried out, proved that economically the fattening of hogs for bacon was highly profitable. Upon the delivery of porkers aged 8 months, and fattened for bacon, the net profit obtained from hogs of the Livny breed was 33%, from crossbreeds of the Livny breed with boar of the white breed 46.7%, from the large white 39.7%, and from crossbreeds of the white breed with boars of the Livny breed 54.8% higher than that of the profit ob-

Card 1/2

37

USSR/Farm Animals. Swine

Q-3

Abs Jour : Ref Zhur - Biol., No 19, 1958, No 88104

Author : ~~Popov~~ A.Ya.

Inst : Kharkov Zootechnical Institute

Title : Effectiveness of Industrial Cross-Breeding of White and Livonian Breeds of Swine Under Conditions of the Sovkhozes of the Khar'kov Sugar Beet Trust

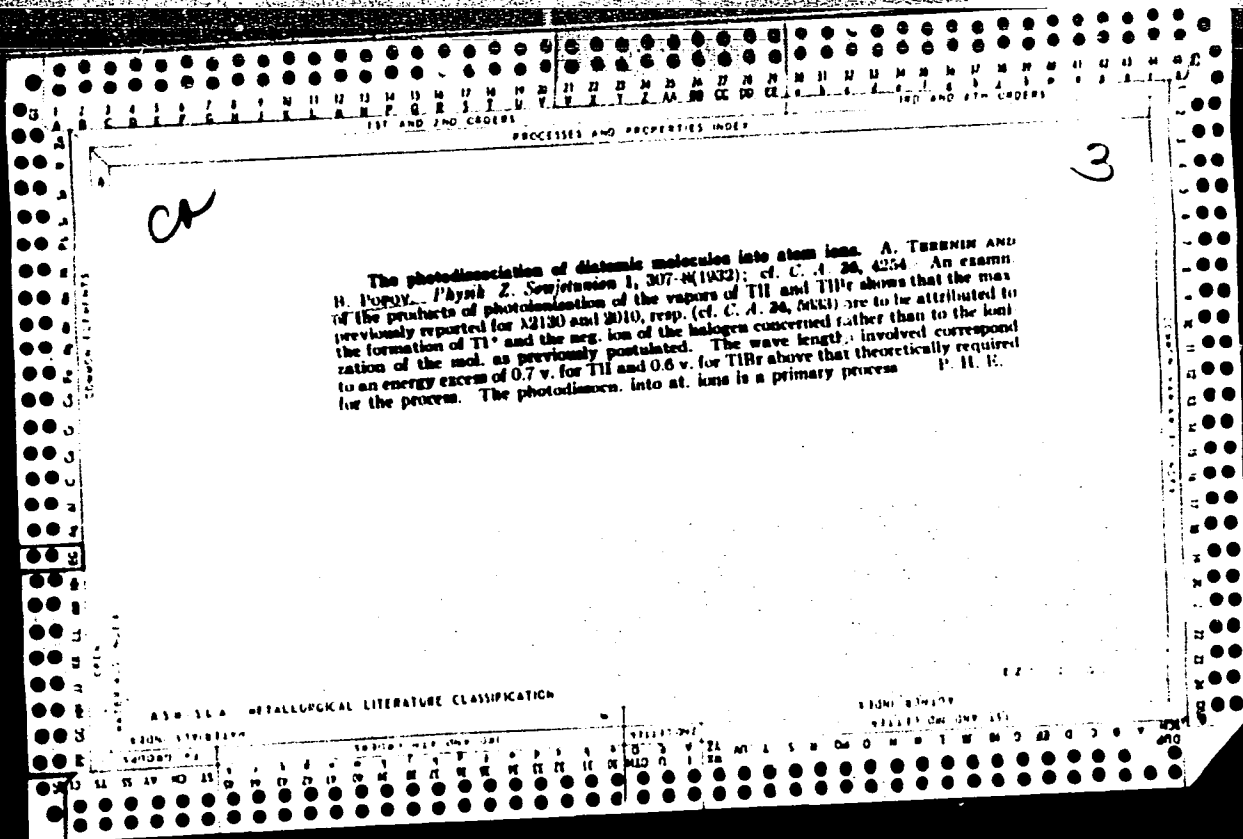
Orig Pub : Sb. tr. Khar'kovsk. zoetekhn. in-ta, 1957, 9, 163-172

Abstract : In the cross-breeding of swine of the white and Livonian breeds, the white breed proved to be the better maternal foundation with regard to the feeding for fattening purposes. With regard to the feeding for pork purposes, best results were obtained from the pure-breed rearing of the white breed. The cross-breeding of sows of the Livonian breed with white-breed boars resulted in an increase in live weight and made profitable the feeding for pork, bacon and fattening purposes to a greater extent than with respect to the offspring of the Livonian breed alone. The

Card : 1/2

POPOV, Bor.

Bulgarian programming interrupter. Tekh delo no.433:1 7 JI '62.

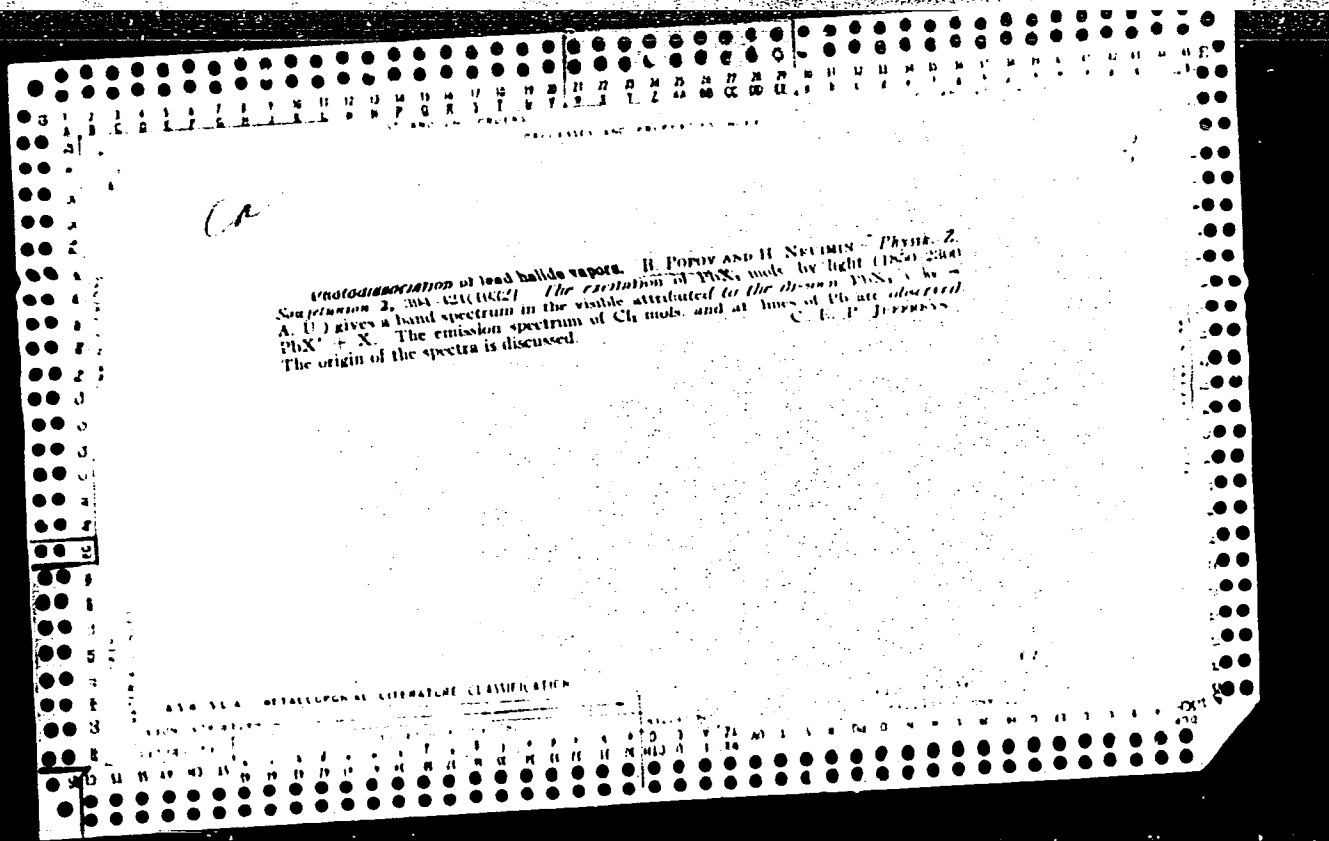


3

ca

Photodissociation of salt molecules into ions. A. TERRIN AND H. POISSY. *Physik*
Z. Supplement 2, 299-310 (1972) - Measurements of the wave length for TlX photo
dissocn. were carried out for TlI, TlBr and TlCl. The values found were 213 mμ for
TlI, 201 mμ for TlBr, and 185 mμ for TlCl. The potential-energy curves for the binding
energy of the mol. TlI for the normal and ionic state are given. In contrast to the
behavior of the alkali halides in the presence of light where the mol. are in the normal
ionic state and are transformed by light absorption to the at type of binding followed by
resulting dissocn., the TlI mol. changes from the normal to the ionic state followed by
dissocn. J. H. Wain

ASAC SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

a7

BC

Optical dissociation of the lead halides. B. POGOR, and M. KHEVURTS (J. Phys. Chem. U.S.S.R., 1954, 8, 202-204).—Excitation of Pb halides with λ 1800–2000 Å. caused emission of a visible band spectrum of the Pb-halochalide/mol., a spectrum of the halogen mol.; and a line spectrum of Pb. Heats of dissociation calc. from the spectral data are recorded. Ch. Abs. (c)

A19-51A METALLURGICAL LITERATURE CLASSIFICATION

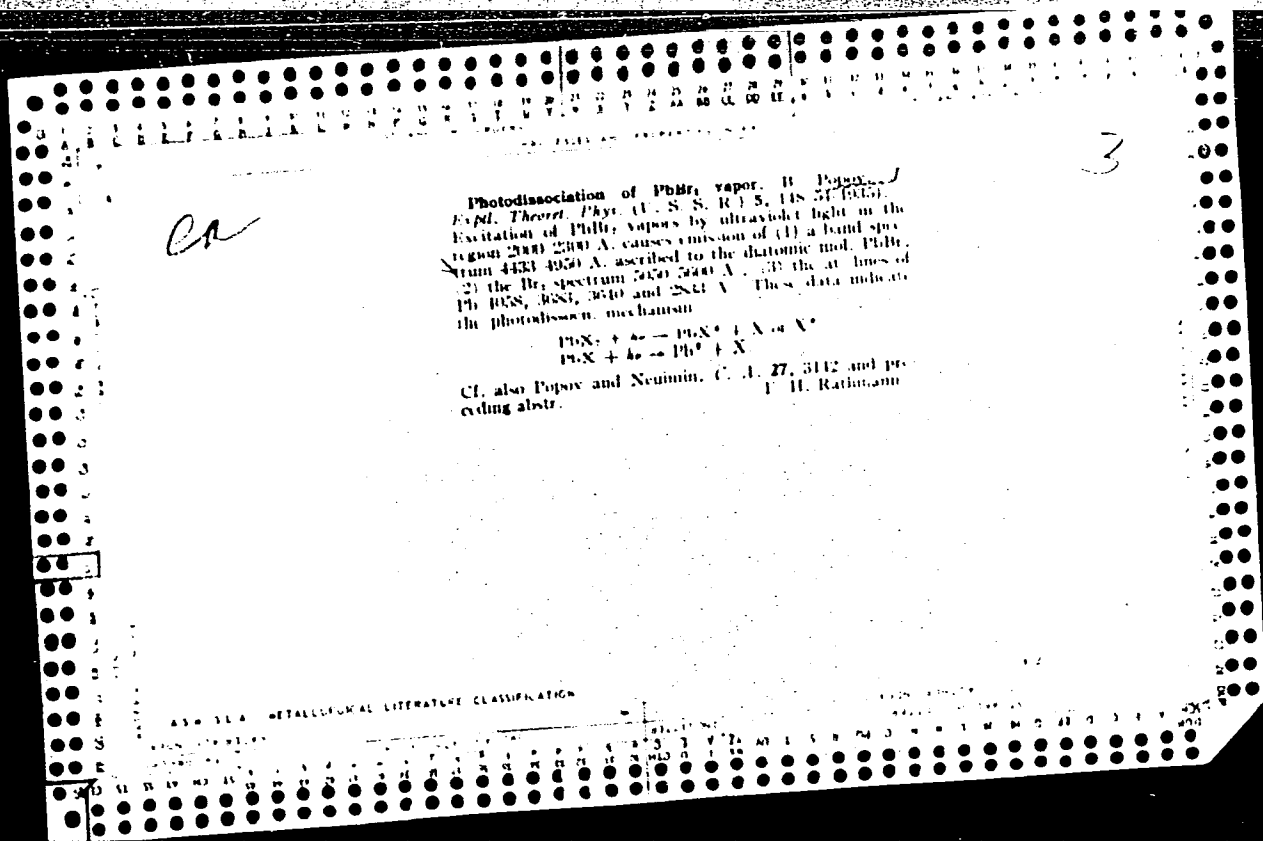
A19-51A METALLURGICAL LITERATURE CLASSIFICATION

A19-51A METALLURGICAL LITERATURE CLASSIFICATION

3

The photochemical oxidation of carbon monoxide in the Schumann region. B. Popov. *Acta Physicochim. U. R. S. S. R.* 3, 223-44 (1955) (in English); *J. Phys. Chem. (U. S. S. R.)* 7, No. 2 (1956) (in Russian). — The oxidation of CO by at. O, produced by the optical disson. of mol. O in the region λ less than 1750 Å., was manometrically measured at pressures of the gas mixt. from 0.01 to 1.5 mm. Hg and at temps. up to 150°. The reaction is heterogeneous and has a very small energy of activation. Contrary to the case of the oxidation of CO by at. O obtained by discharge, the efficiency of collisions (on the wall) in the present expts. is large; this can be explained by the participation of metastable atoms, O (1D), obtained during the photodissoen. of mol. O together with the normal ones. The kinetics of the reaction is assumed to involve as the principal process the reaction $CO_{ad} + O \rightarrow CO_2$, and is given by the equation $CO_2/dt = k_1[CO]_b + k_2[CO]$ but falls off somewhat too rapidly toward the end. A correlation between the consts. of the reaction and the isotherm of the adsorption of CO on quartz has been shown. F. H. Rathmann

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

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