

ANTONOV, N.G., gornyy inzh.; GRADOBIK, A.N., gornyy inzh.

Industrial testing of new explosives. Gor.shur. no.8:36-39
Ag '62. (MIRA 15:8)

1. Magnitogorskiy metallurgicheskiy kombinat.
(Explosives--Testing)

ANDREW, N.G., 1961, GLENDALE, A.C.

The SKIN-TOE machine. Model 1. 1961. 1961. 1961.
12-13-65. (MAY 1961)

SHITOV, I.S.; ANTONOV, N.G., gornyy inzhener; TIKHOVIDOV, A.F., gornyy inzhener.

Potentialities for increasing labor productivity in the Magnitogorsk
mine. Gor.zhur.no.9:8-11 S '56. (MLRA 9:10)

1.Glavnyy inzhener Gornogo upravleniya Magnitogorskogo metallurgiche-
skogo kombinata (for Shitov).
(Magnitogorsk--Mining engineering)

ANTONOV, N.G., gornyy insh.; GRADOBIK, P.N., gornyy insh.

Efficient use of KZDSb-58 pyrotechnical relays in the Magnitogorsk
Mine. Gor.shur. no.1:73-74 Ja '63. (MIRA 16:1)

1. Gornoye upravleniye Magnitogorskogo metallurgicheskogo
kombinata.
(Magnitogorsk region--Blasting--Equipment and supplies)

IVANOV, V.I., itzh.-kapitan 3-go ranga ANTSOV, N.S., itzh.-kapitan 3-go ranga

Overloading of ship nuclear reactors. Mor. sbor. 48 no.17:62-68
p.164. (MIRA 18:2)

ANTONOV, R.S., gornyy inzh. A. I. DEBIT, A.I., gornyy inzh. I. N. P. ...
gornyy inzh.

Mastering the P-25 roller-bearing machine at the Magnitogorsk mine.
Gor.zhur. no. 3:39-41 Mr '65. (MIRA 18:5)

1. Gornoye upravleniye Magnitogorskogo metallurgicheskogo kombinata.

ANTHONY, N.I.

ANTHONY, N.I.
PASK

ANTONOV, N.I. AND KARTOV, S.F.

"The Spread of Typhoid Through Water, A New Factor in Its Epidemiology,"
Jour. Bact. (~~1936~~) V. 32:243-58, 1936.

Epidemiol. Sect., Inst Epidemiol & Mikrobiol. Tomsk.

ANTONOV, N.I.

Technical and economic indices in the automobile industry. Avt.
prom. no.7:1-2 J1 '60. (MIRA 13:7)

1. Ul'yanovskiy avtosavod.
(Automobile industry)

ЕНОТОВЫ, В. Г., АНТОНОВ, В. П.

Tree Planting

Planting pine in self-shading holes. Les 1 step' 4, No. 2, 1952.

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

ANTONOV, N.M.

Effect of benzene hexachloride on the viability of pines in connection
with treatment of their seedling roots under dry conditions. Nauch.
trudy Inst.ent. i fit. 6:30-37 '55. (MIRA 9:7)
(Pine) (Benzene hexachloride)

PAVLOV, P.P.; ANTONOV, N.M.; KULIKOV, B.A.; PLOTKIN, M.Z.; KHOVAKOVA, A.M.;
SKLINA, V.G.

Using fine water spray for extinguishing petroleum product fires.
Izv.vys.ucheb.zav.; neft' i gaz 1 no.9:85-88 ' 58.

(MJRA 11:12)

1. Azerbaydzhanskiy industrial'nyy institut imeni M. Azizbekova
i Tsentral'nyy nauchno-issledovatel'skiy institut protivopozharnoy
oborony.

(Petroleum industry--Fires and fire prevention)

ANTONOV, N.M.; ZAMAKHAYEV, M.S., redakter.

[New method of planning vertical curves in the longitudinal section of automobile roads; description and tables] Novyi metod proektirovaniia vertikal'nykh krivyykh v prodel'nom profile avtomobil'nykh dorog; opisaniie i tablitsy. Moskva, Izd-vo derezhnikhtekhn. lit-ry Gushodera MVD SSSR, 1953. 130 p. (MLRA 7:7)
(Roads--Tables, calculations, etc.)

ANTONOV, Nikolay Mikhaylovich; IYEVIEVA, S.A., red.; MAL'KOVA, N.V.,
~~tekhn.red.~~

[Designing vertical curves in longitudinal sections of highways;
tables] Proektirovanie vertikal'nykh krivykh v prodol'nom
profile avtomobil'nykh dorog; tablitsy. Izd.2., perer. i dop.
Moskva, Nauchno-tekhn.isd-vo M-va avtomobil'nogo transp. i
shosseinykh dorog RSPSR, 1959. 166 p. (MIRA 12:12)
(Roads--Design)

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1087

25677

8/122/60/000/005/015/017
A161/A130

AUTHOR: Antonov, N. M., Engineer

TITLE: New chromium-plating and anodizing devices for internal surfaces of cylindrical parts

PERIODICAL: Vestnik mashinostroyeniya, no. 5, 1960, 66-68

TEXT: A new device design eliminating the shortcomings of existing devices for porous chromium plating in bores was developed by the author (jointly with Engineer S. V. Sharov, Author's Certificate no. 91635). It was tested in mass production of engine cylinders and linings. The device (Fig. 1) is suspended and simultaneously contacted in 3-5sec. The anode consists of a rod (1) attached to a ring (2) with three contact bushings (3) also fixing the anode position. The cathode consists of a rod (4) and a ring (5), the part to be plated is installed on the ring (5) with the use of replaceable flanges (6) and bolts. The part contacts with the flange by thread, or by contact screws (7). Posts (8) connect the anode and cathode parts being insulated by vinyl plastic washers and a bushing. The anode (10) is a steel pipe coated with lead and joined to the support flange (11) by three guide pins (12). Contacts (13) with hooks (14) are attached to the

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New chromium-plating and anodizing ...

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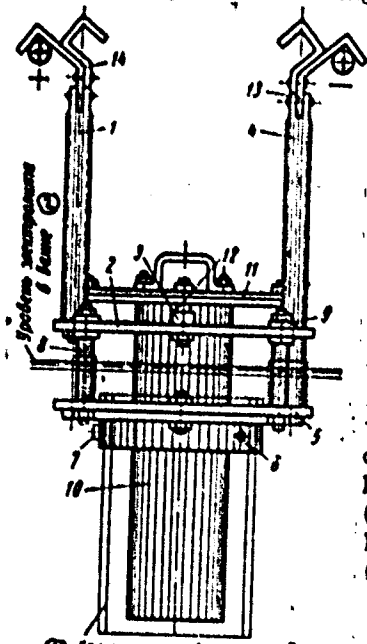
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A161/A130

anode and cathode rods. All parts except of the guide bushings (3) and contacts (13) are made of low-carbon steel. The ring (5), bushings (3) and contacts (13) may be of copper or brass. The anode is of an alloy of 92-94% lead with 6-8% antimony. The posts (8) and the bottom portion of the rod (4) are insulated with bakelite varnish (to prevent chromium deposit). The part to be plated is placed on the cathode ring (5), and the anode inserted into it. The three pins (12) are put into the guides (3), and the whole device suspended into the plating bath. The anode of a design modification for plating one only cylinder size contacts the anode rod through flexible conductors. A special device (Fig. 3) is used after heat treatment of chromium-plated parts to eliminate brittleness. This device is installed and removed in 2-3 sec in the bath. It consists of rods (1) connected with a support flange (2) having two diametrically opposite cuts for transition flanges, and the rods are provided with bores for connecting threaded contact flanges (3). Springs set on the bolts (4) ensure contact. One of the pair of hooks on the rod tops is designed for contact with the cathode rod in the bath. The anode (7) is installed on a flange (6) made of organic glass. The anode consists of a steel pipe with lead coating. Pins (9) in the mid of flanges (8) are for placing the anode. Contact between the anode rod of the bath is by flexible conductors (10) and special parts (11) and (12). The part (11) is at

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New chromium-plating and anodizing ...

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the same time the holder for the anode. All major parts are of alloy steel, except for terminals and hooks (5), being of copper or brass. Spots on cathode rods not screened by the workpiece and located opposite the anode are insulated with bakelite varnish or vinyl plastic hoods (13). The parts may also be made of carbon steel and coated with lead. The workpiece is installed in the flange (3) by the flange (2) (or screwed on the threaded flange), and the anode is contacted to the anode rod in the bath by the flexible conductors (10). If necessary, parts to be treated may be installed and removed directly above the bath. There are 3 figures.
 Fig. 1: (1) - The workpiece to be plated,
 (2) - The electrolyte level in the bath,
 Fig. 3: (1) - The workpiece to be anodized,
 (2) - The electrolyte level.

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① *Исходный текст* Fig. 1.

ANTOROV, N.M., inzh.

Anode-jet chromium plating. Vest. mashinostr. 44 no.10:37-39
O '64.

(MIRA 17:11)

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27556
S/122/61/000/005/002/015
D221/D304

AUTHORS: Antonov, N.M., Engineer, and Voronitsyn, I.S., Candidate of Technical Sciences, Docent

TITLE: Mass production of chromium plated components

PERIODICAL: Vestnik mashinostroyeniya, no. 5, 1961, 10 - 14

TEXT: The author states that Soviet electro-chemists have developed and mastered the technology of ac chromium plating as well as depositing chromium in self-controlled electrolytes, and jet and flow methods of covering. The ac chromium plating allows the improvement of deposits and intensification of the process to be obtained due to increased density of current. Deposits have a better, fine crystal structure, their internal stresses are lower, whereas the fatigue strength of carbon steel remains almost unchanged. Limit of endurance in steel 45 is reduced by 4 - 9 % as compared to a drop of 27 % with a normal dc chromium plating. Uniformity of deposits is increased by 15 - 25 % on account of partial elimination of gases in the former. Surface finish is also higher by 1 - 2

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mass production of chromium ...

classes. Lower allowances for machining coupled with accurate dimensioning of thickness of deposits indicate a promising future for this process. Change in frequency of ac results in the formation of either porous or plain chromium plating. The composition of the electrolyte, density and other conditions are described. Porous deposits are easier to machine due to their fine crystal structure. The feature of a self-regulating electrolyte consists of its content of salts of sulphuric strontium and fluosilicic calcium that automatically regulate the content of ions of sulphate, and make unnecessary frequent correction of electrolyte. The possibility of obtaining thick layers without hindering their mechanical properties is another advantage, in addition to high wear resistance and hardness. Jet and flow methods of chromium plating also increase output and quality of production. Investigations have established that forced circulation of normal composition electrolyte coupled with stirring intensify the process of plating. Stirring in the zone of electrolysis promotes the reduction of thickness of boundary diffusion layer, and thus raises the number of ions that reach the cathode. This lowers the concentrated polarization and the

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electrode overvoltage which facilitates the discharge of metal. Continuous supply of fresh electrolyte into the zone of electrolysis ensures its renewal anode-cathode space, helping the evacuation of gases, increase of conductivity of electrolyte and larger deposition of chromium with the current. A fixture for chromium plating of internal surfaces of cylindrical components is shown, covered by Author's Certificate no. 128251 in the name of N.M. Antonov. Its main feature is centering of the anode in respect to the treated component. A new design for an automatic unit for wear resistant chromium plating based on jet and flow methods of electrochemical treatment is covered by Author's Certificate no. 665606/22, dated October 31, 1960 in the name of N.M. Antonov. It should be noted that all similar constructions envisage stage treatment by transfer of components through a series of baths which complicates the equipment and does not correspond to the modern requirements of intensified process, and also results in the inefficient use of production area. The automatic machine is equipped with a system of valves that are switched over by a control apparatus which also regulates the electrolytic and thermal conditions of the process at various stages of treatment. This arrangement

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D221/D304

Mass production of chromium ...

not only simplifies the design, but also increases the work efficiency, quality of plating and the use of production area. The article illustrates the anode jet installation for automatic chromium plating of internal surfaces of cylindrical components. It includes degreasing, chromium plating, anodizing, cold and hot rinsing as well as hot air drying. Various sections of the anode jet device are described, in addition to the cathode mounting arrangement. The equipment is fitted on channel structure. The unit can be used for electropolishing, anodizing, phosphating and other galvanic processes with some modifications in its design. Appropriate choice of anode-cathode sections or the suspension and jet devices allows treatment of components with different shapes to be made. Chromium plating of such items as cylinder blocks of car engines is more expedient with the use of flow through the method which ensures the intensification of process and allows high quality of deposits to be obtained. On the basis of investigations carried out by author on this subject, a Priority Note no. 67931/22, dated August 29, 1960 was issued. The installation consists of an electrolytic stand with tanks for degreasing and chromium electrolyte with a double

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Mass production of chromium ...

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D221/D304

ter and corrector, control apparatus, centrifugal pump, piping and valves etc. The automatic installation can be used for batch chroming of cylinder blocks for the latter's hardening or during reclamation of worn units. There are 3 figures and 3 Soviet-bloc references.

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Card 5/5

ANTONOV, N.M.

New automatic unit for electroplating and electrochemical
treatment of parts. Avt.prom. 27 no.10:33-35 0 '61. (MIRA 14:10)
(Electroplating—Equipment and supplies)

ANTOKOV, Nikolay Mikhaylovich, inzh.; VAYNER, Ya.V., kand. tekhn. nauk, red.; FOMICHEV, A.G., red. izd-va; GVINTS, V.L., tekhn. red.

[New suspended devices for electrochemical treatment of cylindrical parts] Novye podvesnye prisoobleniia dlia elektrokhimicheskoi obrabotki tsilindricheskikh detalei. Leningrad, 1962. 17 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seria: Zashchitnye pokrytiia metallov, no.5) (MIRA 15:11)
(Electroplating--Equipment and supplies)
(Electrolytic polishing--Equipment and supplies)

ANTONOV, N.M.; SHEYNIS, G.I.

Moscow-Volgograd. Avt.dor. 27 no.11:3-4 N '64.

(MIRA 18:4)

МАТЕНУЛ, Н. В.

Дос Culture - Novgorod Province

Kuban бэс in Novgorod Province Pehslovolstvo 29, no. 4, April 1952

9. Monthly List of Russian Accessions, Library of Congress, August 195²/₃, Uncl.

1. N. N. ANTONOV
2. USSR (600)
4. Bee "
7. Aiding the queenless colony in the winter hive. Pchelovoistvo 29 no. 12. 1952.

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

1. M. N. ANTNOV
2. USSR (600)
4. Bee Culture - Equipment and Supplies
7. Importance of a stock of artificial combs. Pchelovodstvo 50 no. 1. 1953.

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

ANTONOV, N.H.

Area of effective use of units with large rated power in
condensing electric power plants operating in a consolidated
power system. Sborn. rab. po vop. elektr. no. 10:48-52
63. (MIRA 17:8)

ANICHOV, M. I.

ANTONOV, N.P.; KULLE, P.A.; MARAMZIN, A.V.; UTKIN, I.A.; VITTOUF, M.V.,
redaktor; MOLOKOVA, Ye.I., vedushchiy redaktor; SOKOLOVA, Ye.V.,
tekhnicheskiy redaktor

[Exploratory drilling with the ZIF-300 drilling unit; practical
manual] Rasvedochnoe burenie stankami ZIF-300; prakticheskoe
rukovodstvo. Leningrad, Gos. nauchno-tekhn. izd-vo neftianoi i
gorno-toplivnoi lit-ry, 1954. 221 p. (MLRA 7:9)
(Boring machinery)

ANTONOV, N. P.

ANTONOV, NO. P.: "Investigation of high-speed cutting of threads on cast-iron parts". Moscow, 1956. Min Higher Education USSR. Moscow Order of Labor Red Banner Higher Technical School imeni Bauman. (Dissertations for the Degree of Candidate of Technical Sciences)

SO: Knizhnaya letopis', No. 52, 24 December, 1965. Moscow.

ANTONOV, N.P.

Specific nature of the individual consciousness of man as the
highest degree of mental development [with summary in English].
Vop.psikhol. 4 no.6:79-88 N-D '58. (MIRA 12:1)

1. Kafedra filosofii Ivanovskogo pedagogicheskogo instituta.
(Consciousness)

B-13 "MAKAR, N. P., et al. Sbornik zadach i matematiki
predlagavshikh na vstupitel'nykh eksamenakh v VUZ
(Collection of mathematical problems presented in entrance
examinations for higher educational establishments).
Moscow, Gos. ind-vo tekhn. -teoret. lit-ry, 1951. 288p.

Problems presented at entrance examinations during
1935-40 and 1940-49 in a number of higher schools
which are listed by name.

ANTONOV, Nikolay Petrovich; VYGODSKIY, Mark Yakovlevich; NIKITIN, Vladimir Vasil'yevich; SANKIN, Aleksandr Iosifovich; RYVKIN, A.Z.,redaktor; AKHLANOV, S.N., tekhnicheskiiy redaktor

[A collection of problems in elementary mathematics; a manual for home study] Sbornik zadach po elementarnoi matematike; posobie dlia samoobrazovaniia. Izd. 3-e. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 532 p. (MLRA 10:1)

(Mathematics--Problems, exercises, etc.)

ANTONOV, Nikolay Petrovich; VYGODSKIY, Mark Yskovlevich; NIKITIN,
Vladimir Vasil'yevich; SANKIN, Aleksandr Iosifovich; POLOVINKIN,
S.M., red.; BRUDNO, K.F., tekhn.red.

[Collection of problems on elementary mathematics; aid for
self-study] Sbornik zadach po elementarnoi matematike; posobie
dlia samoobrazovaniia. Izd.6. Moskva, Gos.izd-vo fiziko-matem.
lit-ry, 1960. 532 p. (MIRA 13:6)
(Mathematics--Problems, exercises, etc.)

ANTONOV, Nikolay Petrovich; VYGODSKIY, Mark Yakovlevich; NIKITIN,
Vladimir Vasil'yevich; SANKIN, Aleksandr Iosifovich; POLOVINKIN,
S.M., red.; AKSEL'ROD, I.Sh., tekhn. red.

[Collection of problems in elementary mathematics; a textbook for
self-education] Sbornik zadach po elementarnoi matematike; posobie
dlia samoobrazovaniia. Izd.8., stereotipnoo. Moskva, Fizmatgiz,
1962. 528 p. (MIRA 15:7)
(Mathematics--Problems, exercises, etc.)

ANTONOV, N.S. (Arkhangel'sk)

Relation of mathematical instruction to other subjects of the
polytechnic curriculum. Mat. v. shkole no.2:9-15 Mr-Apr '61.
(MIRA 14:4)

(Technical education)
(Mathematics--Study and teaching)

ANTONOV, V.V.

Apparatus for fitting together bell-and-spigot joints of pipes in
running sands. Rats. i isobr. predl. v stroi. no.3:119 '57.
(Pipe fitting) (MIRA 11:1)

AUTHOR: Antonov, N.V. and Mindlin, M.G.

Sov/93-58-4-4/.9

TITLE: Prolonging the Service of Roller Bearings in Cone Rock Bits (Obudlineni aroka sluzhby rolikovykh opor v sharoshechnykh dolotakh)

PERIODICAL: Neftyanoye khozyaystvo, 1958, Nr 4, pp 20-26 (USSR)

ABSTRACT: The authors refute the idea of certain designers that the skewing of rollers in cone rock bits can be prevented by lengthening the rollers. They prove their point by calculating the possible skew angle of rollers ranging in length from 20 to 24 mm. (Figs. 1-5) produced by the Plant im. Kirov. Furthermore, they prove that the skewing of rollers is related to the clearance between the rollers and to the clearance in the roller bed (Figs. 6-8). The authors suggest that the skewing of rollers can be prevented by decreasing the end play between the face of the rollers and the shoulders of the roller bed at the expense of the roller length and width of the roller bed (Fig. 9), as well as by raising the shoulders on the trunion. There are 9 figures.

Card 1/1 1. Petroleum industry 2. Drilling machines--Equipment 3. Roller bearings--Design

KUROCHKIN, G.A.; TRAVKIN, V.S.; VLADISLAVIEV, Yu.Ye.; ANTONOV, N.V.;
GUREVICH, E.M.; SHIT, Ye.E.; PETROPAVLOVSKIY, B.P.; ACHKASOV,
N.I.; BORMOTIN, I.M.

Inventions. Gor.zhur. no.2:74-75 # '63. (MIRA 16:2)
(Mining machinery—Technological innovations)
(Earthmoving machinery—Technological innovations)
(Railroads—Rails)

DULIN, I.I.; YESHOV, P.T.; ANTONOV, N.V.; KANEV, A.I.; SERBINOV,
V.P.; BUGRO, Z.N.; POPOV, V., red.

[The Pechora Coal Basin in the seven-year plan; a technical
and economic survey for 1958-1963] Pechorskii ugol'nyi bas-
sein - v semiletke; tekhniko-ekonomicheskii obzor za 1958-
1963 gg. Syktyvkar, Komi knizhnoe izd-vo, 1964. 92 p.
(MIRA 18:4)

PARNITSKIY, A.B., dotsent, kandidat tekhnicheskikh nauk; EYDINOV, M.S.,
kandidat tekhnicheskikh nauk; ~~ANTONOV, N.Ya.~~ inzhener; GASUKOV,
V.S., inzhener.

Working cycle study of mine hoisting machinery. Sbor.st.Ural.poli-
tekh.inst. no.47:78-90 '53. (MLRA 8:1)
(Mine hoisting)

PARNITSKIY, A.B., dotsent, kandidat tekhnicheskikh nauk; EYDINOV, M.S.,
kandidat tekhnicheskikh nauk; ANTONOV, N.Ye., inzhener; GASHUKOV,
V.S., inzhener; DEBYZIN, S.I., inzhener.

Wire transmitter tensiometry of mine hoisting machinery. Sbor.st.
Ural.politekh.inst. no.47:91-101 '53. (MLRA 8:1)
(Mine hoisting) (Tensioneters)

EYDINOV, M.S.; ANTONOV, N.Ye.

Investigating trunks of ground-type charging machines. Sbor.
st.Ural.politekh.inst. no.65:129-142 '58. (MIRA 12:4)
(Metallurgical plants--Equipment and supplies)

L 12457-63

EPP(c)/EWT(m)/BDS- AFFTC/APGC Pr-4 BW/DJ

S/091/63/000/004/001/001

AUTHORS: Antonov, N. Ye. and Prudnikova, T.P., Engineers

TITLE: Operation of transformer oil with antioxidants

PERIODICAL: Energetik, no. 4, 1963, 20-22

TEXT: For prevention of oxidation of transformer oils under operating conditions, besides thermosiphon filters, various antioxidant additives are used. With filters, operation is more complicated and expensive, whereas previous data for antioxidants was limited and inconclusive for operating conditions. A five year (1957-51) experiment under operating conditions was made at the power supply network of Mosenergo using oil with 0.03% Pyramidon (aminopyrine) as an antioxidant for 44 items of equipment, including 19 transformers with capacities of 1000-3200 kilovolt amperes. Annual samples of oils were taken, and results of laboratory tests for oxidation no. (ml. KOH), Pyramidon content, and reaction of the aqueous extract (pH) indicated that Pyramidon definitely decreases oxidation and the transformer oils are stable for many years. Not all transformer oils are compatible with Pyramidon. The Card 1/2

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L 12457-63
Operation of transformer oil...

S/091/63/000/004/001/001

compatibility of Pyramidon and stability of oils was first determined under laboratory conditions. When laboratory tests indicated incompatibility with Pyramidon, oil stability was not attained either under laboratory or operating conditions in two transformers of 3200 and 1000 kilovolt amperes. Oxidation is more rapid than in the oil without an antioxidant. Laboratory and operating experiments were also made with antipyrine. Regardless of compatibility, within a year of operation antipyrine was absent and the oil became progressively more acidic and had to be regenerated. Antipyrine did not improve the oil stability and was unsuitable for this purpose. There are 4 tables and 2 figures. ||

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L 04456-07 EWT(d)/EWT(m)/T-2/EWP(E)

ACC NR: AP6028566

SOURCE CODE: UR/0209/66/000/008/0018/0025

AUTHOR: Antonov, G. (General designer); Tolmachev, V. (Engineer)

52
51
B

ORG: none

TITLE: Transport aircraft today and tomorrow

SOURCE: Aviatsiya i kosmonavtika, no. 8, 1966, 18-25

TOPIC TAGS: transport aircraft, aircraft performance, turboprop aircraft/AN-22
transport aircraft

ABSTRACT: Although subsonic aircraft are considered to be the most economical aircraft for transporting cargo, it is possible that sooner or later supersonic cargo transports will appear. The main prerequisites for success in the development of such an aircraft are the reduction of the weight and specific fuel consumption of jet engines and the search for new aerodynamic configurations for transport aircraft. At present, however, even the development of transonic transport aircraft with large cargo compartments, high takeoff and landing characteristics, and independence from ground-support equipment is a problem. It is more important to decrease the loading and unloading time of transport aircraft than to increase their cruising speed. The load ratio (cargo-over-takeoff-weight ratio), specific fuel consumption, range, and takeoff and landing runs are the principal economic factors of transport aircraft.

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ACC NR: AI6028566

An increase in aircraft speed results in a decrease in the lift-over-drag ratio and an increase in the specific fuel consumption per kilogram of thrust and of aircraft weight. The flying speed, however, should not be lower than the optimal speed for the power plant selected for the aircraft. The turboprop power plant should be used within a speed range not exceeding Mach 0.7. The speed range for by-pass turbojet power plants is from $M = 0.65$ to $M = 1.1$, and for jet-engine power plants the speed range reaches a Mach number higher than 0.9.

From the article it follows that future transport aircraft heavier than the AN-22 will be equipped with turboprop engines. After stating that the AN-22 lifts up to 80 tons of cargo and has a maximum range of 11,000 km, the authors indicate that there are no basic limitations to the development of transport aircraft, equipped with new turboprop engines designed by aircraft Designer-in-Chief N. D. Kuznetsov, with greater payload and range than the AN-22 aircraft. There are other techniques for increasing payload and range which do not require an increase in the payload-to-takeoff-weight ratio and an improvement in engine efficiency. Since range is related directly to the lift-over-drag ratio of an aircraft, designers are paying great attention to the idea of boundary-layer control by suction in order to decrease total drag by 20 to 30 percent. There already exist experimental aircraft with boundary-layer bleeding systems. Aircraft takeoff and landing performance can be improved by the use of a boundary-layer blowing system

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~~I 0455-67~~

ACC NR: AF6028566

with a jet flap. However, since there are a great number of design complexities involved in the development of a jet flap, "there may be only a single experimental aircraft in the world with this system." D

The possibility of automating all phases of flight, from takeoff to landing, is discussed. In spite of the use of semiconductors and miniaturization, the weight and volume of aircraft electronic equipment have continued to increase from year to year. The total weight of all aircraft systems and equipment makes up 8 to 12 percent of an aircraft's takeoff weight, and each additional kilogram of equipment weight increases the takeoff weight by 4 to 10 kilograms. Orig. art. has: 8 figures. [ATD PRESS: 5062-F]

SUB CODE: 01 / SUBM DATE: none

Card 3/3 egle

ANTONOV, O.G., starshiy leytenant

Supplying ultrashort-wave radio stations from an a.c. network.
Vest.protivovozd.obor. no.3159 Mr '61. (MIRA 14:7)
(Radio, Military)

ANTONOV, O.G.

Concerning the economic efficiency of accelerated automatic starting of steam turbines. Energ.i elektrotekh.prom, no.4:3-5 O-D '62. (MIRA 16:2)

1. Institut avtomatiki Gosplana UkrSSR.
(Steam turbines)

L 1300-26

ACC NR: AF6021489

SOURCE CODE: UR/0413/66/000/011/0140/0140

INVENTOR: Antonov, O. K.; Anisenko, V. G.; Bolbot, A. V.; Yeroshin, V. F.; Ryshik, Ya. I.; Tolisachev, V. I.

ORG: none

TITLE: Method of compensating for the aerodynamic asymmetry of propeller aircraft.
Class 62, No. 182528

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 11, 1966, 140

TOPIC TAGS: aerodynamic control, gas turbine engine, aircraft auxiliary engine, asymmetric body

ABSTRACT: An Author Certificate has been issued for a method of compensating for the aerodynamic asymmetry of propeller aircraft. For the purpose of increasing flight safety and simplifying flying technique, aerodynamic asymmetry is decreased by the thrust of an auxiliary gas-turbine engine (1). This creates a moment opposite

Card 1/2

UDC: 629.135/138

ACC NR: AP6021489

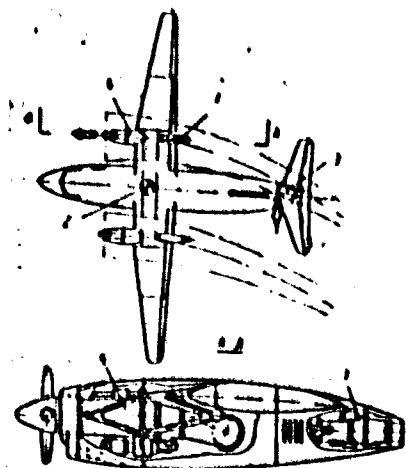


Fig. 1. Compensating for aerodynamic asymmetry

- 1 - Auxiliary gas-turbine engine; 2 - center of gravity; 3 - vertical tail surfaces; 4 - main power plant

to the moment indicated (see Fig. 1), which is caused by an asymmetric blast on the vertical tail (3) surfaces by the airflow from the main power plant (4). Orig. art. has: 1 figure.

(W3)

SUB CODE: 01, 21/ SUBM DATE: 13Oct63/ ATD PRESS: 5042

Cord 212

SHKAYELYAN, A.I.; OVRUTSKIY, Ya.S.; ANTONOV, O.S.

Results of the use of angiocardigraphy to improve the precision of the
diagnosis of tumors of the mediastinum. Vop. pat. i reg. org. krov. i
dykh. no.1:23-31 '61. (MIRA 18:7)

MIKAYELIAN, A.L.; ANTONOV, O.S.; FUFIN, V.I.

Diagnosis of patent ductus arteriosus. Vop. pat. i reg. org. krov. i dykh.
no.1:233-241 '61. (MIRA 18:7)

ANT 127, C.S., Vasil'skiy, G.M.; Koshal'skiy, Ye.S.

Clinical and X-ray picture of isolated aortic valve disease of the coronary artery. Vestn. med. i med. 39 no. (1964) N 5 10.

(MIRA 18:6)

1. Institut eksperimental'noy biologii i meditsiny Vsesoyuznaya sdravokhraneniya SSSR (nauchnyy rukovoditel' - prof. Ye.N. Meshalkin).

FREYLOV, G.I.; GOROD, A.I.; BUKALIN, M.I.

Electroencephalography in diseases of the lungs. Sovetsk. Meditsina 1966
Apr 10. (MIRA 1916)

1. Institut eksperimental'noy biologii i meditsiny (dir. prof. G. S. Zil'berman),
Yu. F. Orlovskiy, zam. dir. prof. G. S. Zil'berman, prof. E. M. Voznesenskaya,
Ministerstvo zdravookhraneniya RSFSR, Sovetskii Soюз.

TAPTAPOVA, S. L.; ANTCNOV, O. S., mladshiy nauchnyy sotrudnik

Localization and formation of pseudovocal time in laryngectomized patients. Vest. otorin. no.1:80-82 '62. (MIRA 15:7)

1. Iz otc. otolaringologicheskogo otdeleniya (nach. - doktor meditsinskikh nauk I. N. Aleksandrov) Moskovskogo gorodskogo chelyustno-litsevogo gospihalya i Instituta eksperimental'noy biologii i meditsiny (dir. - laureat Leninskoy premii prof. Ye. N. Meshalkin) Sibirskogo otdeleniya AN SSSR, Novosibirsk.

(LARYNX--SURGERY)

ANTONOV, O.S., aspirant (Moskva, G-117, 1-y Meopalimovskiy per. d.10, kv.8)

Relationship between the clinical roentgenological picture and the hemodynamic characteristics of high defects of the interventricular septum and patent ductus arteriosus. Vest.rent.i rad. 34 no.6:30-38 W-D '59. (MIRA 13:5)

1. Iz 3-y kafedry rentgenologii (zav. - prof. I.L. Fager) i kafedry grudnoy khirurgii i anestezologii (zav. - prof. Ye.W. Meshalkin) Tsentral'nogo instituta usovershenstvovaniya vrachey (dir. - prof. V.P. Lebedeva).

(DUCTUS ARTERIOSUS diag.)
(HEART SEPTUM abnorm.)

ANTONOV, O.Ye., FONKNAPOV, V.S.

Passage of signals through a nonlinear quadripole. Radiotekhnika
18 no.11:13-19 N '63. (MIRA 16:12)

1. Deystvital'nyye chleny Nauchno-tekhnicheskogo obshchestva
radiotekhniki i elektrosvyazi imeni Popova.

ANTONOV, O.Yu., inzh.

Precast reinforced concrete in the bearing elements of subway
stations. Trnsp. stroi. 12 no.9:50-51 S '62. (MIRA 16:2)
(Subways)
(Precast concrete construction)

ANTONOV, O.Yu., inzh.

Prestressing of underground bearing elements. Transp. stroi. 12
no. 12:44-45 D '62. (MIRA 16:1)
(Prestressed concrete construction) (Tunneling)

ANTONOV, O.Yu., inst.

Construction of precast reinforced concrete tunnel linings.
Bet. 1 shel.-bet. 9 no.10:462-464 0 '63. (MIRA 16:12)

ANTONOV, G. Yu. Inzh.

Reliable multiple hinged systems in elements of tunnel linings. Transp.
stroit. 14 no. 7:40-45 J1 '64. (MIRA 18:1)

ANTONOV, O.Yu., insh.

Looking through old magazines. Transp. stol. 14 no.8:59 Ag '64.
(MIRA 18:1)

ANTONOV, D.Yu., inzh.

Mechanized tunneling with jacketing set in rock. Tranap. stol. 15
no.5147-49 My '65. (MIRA 18,7)

ANTONOV, P., (referred to platform sports)

Three more records entered in the list. Kryl. rod. 15 no.8:
10-11 Ag '64 (MIRA 18:1)

ANTONOV, P.; KORNEICHEV, N.

New regulations for repairing automobile by units. Avt. transp. 36 no.11:
29-30 N '58. (MIRA 11:11)

(Automobiles--Maintenance and repair)

ANTONOV, P., ing.; PARASCHIV, T., ing.

New equipment of small mechanization introduced for manufacturing processes at the branches of the Progresul Plant, Bucharest.
Rev constr si mat constr 15 no. 9:490-492 S'63.

ANTONOV, P., uchitel (gr. Biala Slatina)

How I activate my students in the course of teaching biology.
Biol i khim 6 no. 3: 27-32 '63.

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SOV/137-59-5-11248

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 5, pp 251-252
(USSR)

AUTHORS: Antonov, P.A., Vassaksin, A.I.

TITLE: A New Design of a Thick-Sheet Rolling-Mill Manipulator

PERIODICAL: Sb. statey, Ural'skiy z-d tyazh. mashinostr. im. S. Ordzhonikidze,
1958, Nr 1, pp 166 - 171

ABSTRACT: The authors describe a new design of a manipulator of a semi-continuous thick-sheet 2800/1700 mill. The manipulator is a rack-type device with a one-side hydraulic drive of the left and right rules which are connected by a rigid rod. The maximum weight of the rolled metal is 8000 kg. The maximum travel of one rule is 1175 mm, the speed of the rule travel is 0.3 - 0.5 sec. The hydraulic impulse stroke cylinders of 130 mm diameter and the back stroke cylinders of 60 mm diameter are located in one housing. One transmission shaft is used from the drive side instead of the two shafts in previous designs. The new design of the manipulator made it possible to place the transmission

Card 1/2

GRABOVSKIY, L.K., inzh.; BASHILOV, G.N., inzh.; SOKOLOVSKIY, O.P., inzh.;
KRASNOSEL'SKIKH, S.N., inzh.; ANTONOV, P.A.; BYKOV, V.A., inzh.;
DANILOV, G.G., inzh.; GEL'FENBEYN, Ye.Yu., inzh.; PILIP, M.M.,
inzh.; MAKAROV, B.V., inzh.; RAGINSKIY, D.M., inzh.

Equipment of a working line of hot rolling mills. Sbor. st.
NIITIAZHMASHa Uralsmashzavoda no.6:7C-96 '65.

(MIRA 18:11)

ANTONOV, P.; SRVETS, Z.

Multiple machining of parts. Prof.-tekh. obr. 18 no.2:17-21 F '61.

(Metal cutting—Study and teaching)

(MIRA 14:3)

ANTONOV, P.D.; TRUNOVA, N.N.

Meteorological and synoptic characteristics of storms and their
prognosis in the Chernovtsy region. Trudy UkrNIGMI no.12:57-68
'58.

(Chernovtsy region--Cyclones)

(MIRA 11:12)

Антонов, П.П.

Botany field trip dealing with the topic "Trees and shrubs in winter." Biol.v shkole no.1:20-25 Ja-F '60. (MIRA 13:5)

1. Moskovskiy gorodskoy pedagogicheskiy institut.
(Plants--Frost resistance)

ANTONOV, P.F.

Results of summer practice on state farm. Biol.v shkole no.2:
87-88 Mr-Ap '60. (MIRA 13:8)

1. Moskovskiy gorodskoy pedagogicheskiy institut.
(Student activities)

ANTONOV, P.F.

Excursion work in botany. Biol. v shkole no.3:15-19 My-Je '61.
(MIRA ,4:7)

1. Moskovskiy pedagogicheskiy institut imeni V.I. Lenina.
(School excursions) (Botany--Study and teaching)

ANTONOV, Petr Georgiyevich, tehnolog, geroy truda; GORSHKOV, A.A., doktor
tehnicheskikh nauk, retsentsent; OSIN, I.A., inzhener, redaktor;
KOZLOV, A.G., redaktor; KALETINA, A.V., inzhener, vedushchiy redaktor;
DUBINA, N.A., tekhnicheskiiy redaktor.

[Advice to young foundry workers] Sovety molodomu liteishchiku, Izd.
2-oe, perer. i dop. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.
lit-ry, 1956. 59 p. (MLRA 10:4)

1. Uralmashzavod. (for Antenov)
(Founding)

ANTONOV, Patr Georgiyevich, Geroy Truda; LUZIN, P.G., inzh.,
retsensent; OSIN, I.A., inzh., red.; DUGINA, N.A., tekhn.
red.

[Advice to a young foundryman] Sovety molodomu liteishchiku.
Moskva, Mashgis, 1961. 53 p. (Biblioteka rabochego-
mashinostroitelia. Seria: Peredovaya tekhnika - osnova
kommunisticheskogo truda, no.5) (MIRA 15:7)
(Founding)

L 11298-63

EWP(k)/EWP(q)/BDS/EWT(m)--AFFTC/ASD...Pf-4--JD

ACCESSION NR: AP3003683

S/0186/63/003/003/0342/0346

59

AUTHOR: Shvadov, V. P.; Antonov, P. G.

TITLE: Separation of praseodymium and neodymium by electrolysis with a mercury cathode

SOURCE: Radiokhimiya, v. 5, no. 3, 1963, 342-346

TOPIC TAGS: rare earths, praseodymium, neodymium, separation, electrolysis, mercury cathode, electrolysis output, praseodymium acetate, complexing agent, lithium tartrate, rare-earth amalgam, separation factor

ABSTRACT: Outputs and separation factors in the electrolysis of aqueous solutions of praseodymium and neodymium acetates in the presence of lithium tartrate complexing agent have been determined. Electrolysis was carried out in a cell described by Y. A. Maxwell and R. P. Graham (Chem. Rev., 46, 3, 471 (1950)) with a mercury cathode and platinum anode. The electrolyte was maintained at 20C and pH 6-7. The praseodymium concentration was 0.02 M in all electrolytes. The Nd concentration varied from 2×10^{-5} to 0.02 M. The cathodic potential and specific activity of radioactive tracers in the electrolyte were measured periodically

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L 11298-63

ACCESSION NR: AP300368

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during electrolysis for 30 or 60 min. The rare-earth elements in the amalgam and the electrolyte were estimated gravimetrically after each experiment. The effects of lithium tartrate concentration on the 0.1-0.02 M range, cathodic current density in the 7.7-37 mamp/cm² range, and Pr/Nd concentration ratio in the electrolyte were studied. It was found that 1) output for Nd and Pr decreased unequally with increasing lithium tartrate concentration, so that separation of Nd and Pr was possible; 2) the separation factor for Nd and Pr was not affected by variations in the Pr/Nd concentration ratio in the electrolyte; and 3) current-density variations at 0.03-M lithium tartrate significantly affected the output and separation factor of Nd and Pr, as shown in Figs. 1 and 2 of the Enclosure. These data together with data obtained at different lithium tartrate concentrations, show that separation factors of 30-60 and over were achieved, as compared to a maximum factor of 3 obtained previously by E. I. Onstott (Anal. Chem., 33, 10, 1470 (1961)). The optimum operating conditions at 0.02-M Pr and 0.002-M Nd are as follows: lithium tartrate concentration, 0.34 M; current density, 7.7 mamp/cm²; electrolysis time, 60 min; temperature, 20C. Orig. art. has: 3 tables and 3 figures.

ASSOCIATION: none
 SUBMITTED: 27Apr62
 SUB CODE: CH

DATE ACQ: 07Aug63
 NO REF SOV: 002

ENCL: 01
 OTHER: 006

Card 2/2

SHVELOV, V.P.; ANTONOV, P.G.

Separation of samarium from neodymium and praseodymium by electrolysis
on a mercury cathode. Radiokhimiia 5 no.5:616-618 '63.

(MIRA 17:3)

L 16300-65 EPA(e)-2/EWT(m)/ENA(d)/EWP(t)/EWF(b) Pt-10 IJP(c)/ESD(g)/AFETR/
ACCESSION NR: AP4047846 RAEM(a) JD/JO/WP S/0186/64/006/005/0581/0585

AUTHOR: Shvedov, V. P.; Antonov, P. G.

TITLE: A study of the conditions for the formation of amalgams of gadolinium, terbium, dysprosium and holmium during electrolysis on a mercury cathode

SOURCE: Radiokhimiya, v. 6, no. 5, 1964, 581-585

TOPIC TAGS: gadolinium, terbium, dysprosium, holmium, amalgam formation, mercury cathode, electrolysis, rare earth amalgam

ABSTRACT: The authors note that in the electrolysis of aqueous solutions containing acetates of the rare earth metals and lithium citrate as a complexing agent, the elements of the cerium subgroup and ytterbium readily form amalgams. Reference is made to studies which have shown that the elements beginning with gadolinium show little or no inclination to the formation of amalgams. The purpose of the present article was to establish the capacity of gadolinium, terbium, dysprosium and holmium for amalgam formation by means of the electrolysis, on a mercury cathode, of solutions containing the acetates of these elements and lithium citrate as a complexing agent. The authors do not describe the experimental procedure employed. Basically, however, the quantity of rare earth elements in the amalgam and in the electrolytic phase was determined by weighing the

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ACCESSION NR: AP4047844

C

oxides obtained by the calcination of the precipitated hydroxides and oxalates. The error in the gravimetric analysis was $\pm 0.5\%$, and in the radiometric analysis: $\pm 2-5\%$. The principle conditions of the experiment may be summarized as follows: concentration of Gd, Tb, Dy and Ho: 0.01 M; electrolytic volume: 15 ml; mercury volumes: 8 ml; current density: 30 ma/cm²; cathode area: 70 cm²; time of electrolysis: 2 hours. The authors established that Gd, Tb, Dy and Ho have the ability to form amalgams during the air electrolysis of aqueous acetate-citrate solutions. The amalgamation of these substances depends to a marked extent on the concentration of lithium citrate and of the rare earth element in the electrolyte. Optimum conditions for amalgam formation by these elements were obtained in the weight of mercury: Gd - 0.5, Tb - 0.075, Dy - 0.055, Ho - 0.018. Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 20 11 65

ENCL: 0

SUB CODE: IC

NO REF SOVI: 003

OTHER: 009

Card 2/2

МАТЧЕВ, П.И.
CHASOVITIN, P.A.; ANTONOV, P.A.

Development of tunnel construction in the U.S.S.R. Transp.stroi. 7
no.10:20-26 O '57. (MIRA 10:12)

1. Glavnyy inshener Glavtonnel'metrostroya (for Chasovitin).
2. Glavnyy inshener Metrogiprottransa (for Antonov).
(Tunneling--History)

CHULANOV, G.Ch.; ISHUKHAMKDOV, B.; ANTONOV, P.I.; ROZMANOV, M.M.

[Outline history of the economy of the Kazakh S.S.R., 1917 -
1928] Ocherki istorii narodnogo khozinstva Kazakhskoi SSR,
1917 - 1928 gody. Alma-Ata, Vol.1. 1959. (MIRA 12:12)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata, Institut ekonomiki.
(Kazakhstan--Economic conditions)

NIKOL'SKIY, V.N., kand. tekhn. nauk, red.; ANTONOV, P.I., arkh.,
nauchnyy red.; GORYACHEVA, T.V., red. izd-va; RUDAKOVA, H.I.,
tekhn. red.

[Soundproofing residential and public buildings] Zvukoizo-
listatsia zhilykh i obshchestvennykh zdaniy; sbornik statei
pod red. V.N.Nikol'skogo. Moskva, Gos.izd-vo lit-ry po
stroit., arkh. i stroit. materialam, 1961. 127 p.

(MIRA 14:5)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut
stroitel'noy fiziki i ogranichayushchikh konstruktsiy.
(Soundproofing)

ANTONOV, P.I.; POEL', V.I., nauchnyy red.; CHEKHOVSKAYA, T.P.,
red.isd-va; BOROVNEV, N.K., tekhn.red.

[Safety regulations for workers in the manufacture of roof-
sheeting materials (ruberoid)] Pamiatka po tekhnike bez-
opasnosti dlia rabochikh po proizvodstvu ruberoida. Moskva,
Gos.isd-vo lit-ry po stroit., arkhitekt. i stroit.materialam,
1961. 12 p. (MIRA 15:2)
(Building materials industry--Safety measures)

SHEPEL', L.T., inzh.; TEREHT'YEV, S.G., inzh.; ANTONOV, P.I., inzh.

Application of automatic hard facing of rolls on the 750 mill.
Stal' 22 no.3:256-257 Mr '62. (MIRA 15:3)

1. Zavod "Krasnyy Oktyabr'".
(Rolls (Iron mills)) (Hard facing)

ANTONOV, P.I., inzh.; KHODOSH, V.A., inzh.

Over-all mechanization for the construction of tunnels in unstable
soil. Gor. khoz. Mosk. 35 no.11:25-28 N '61. (MIRA 16:7)
(Underground construction)

L 20111-66 ENT(m)/T/SMP(U)/ENF(K) TIP(c) JDAW

ACC NR: AP6015075

SOURCE CODE: UR/0363/66/002/005/0950/0950

AUTHOR: Antonov, P. I.; Stepanov, A. V.

43
B

ORG: Physicochemical Institute im. A. F. Ioffe, Academy of Sciences
SSSR (Fiziko-tekhnicheskii institut Akademii nauk SSSR)

TITLE: Preparation of tubular germanium crystals

SOURCE: AN SSSR. Izvestiya. Naorganicheskiye materialy, v. 2, no. 5,
1956, 950

TOPIC TAGS: crystal growth, semiconductor crystal, germanium crystal,
tubular crystal, melt grown crystal

ABSTRACT: Semiconductor germanium crystals of tubular form were
obtained directly from the melt by Czochralski technique with the help
of a forming device which is schematically drawn in Fig. 1. The
preparation of crystalline products of a given form directly from the
melt is especially important for materials which are difficult to
machine. Germanium crystals of tubular form were grown on a germanium
single crystal plate or tungsten foil, as a seed. A ring-shaped column
of the melt was raised by capillary forces on pulling the seed from the
melt. Under proper temperature conditions, the growing crystal takes
the shape of the forming graphite cylinder. Either crucible alone, or

2

Card 1/2

UDC: 546.289:548.19

L 2011-00

ACC NR: AP6015075

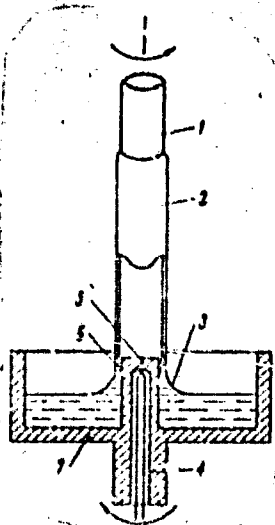


Fig. 1. Schematic drawing of the forming device:

- 1 - Seed; 2 - growing tubular crystal;
- 3 - melt; 4 - thermocouple; 5 - forming cylinder; 6 - crystallization front; 7 - crucible.

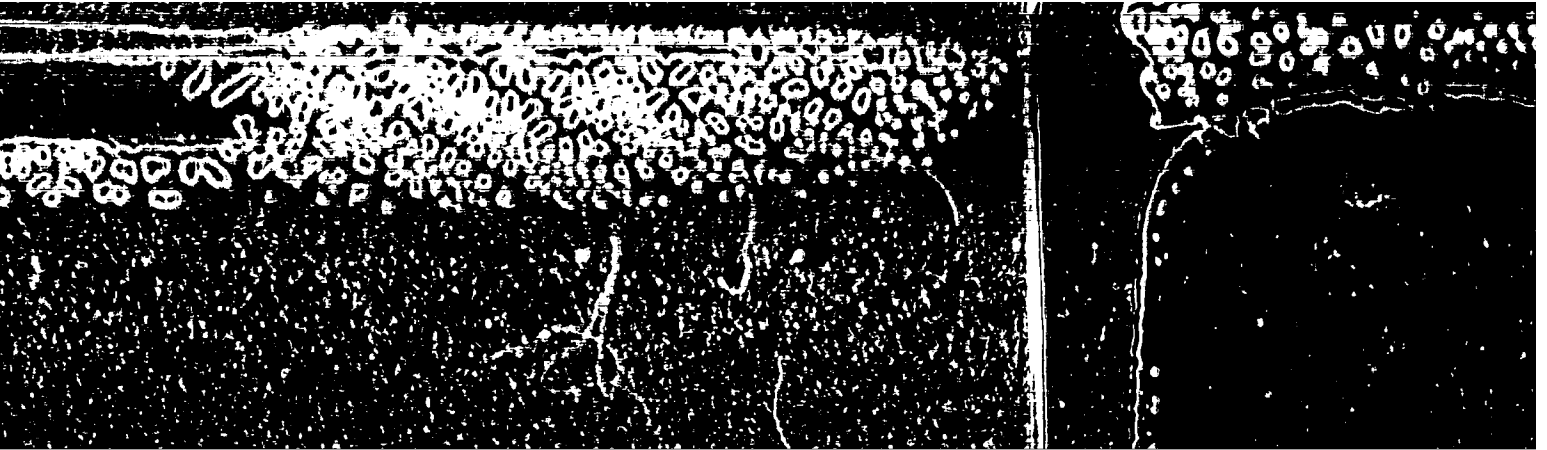
crucible and the seed were rotated at 2 rpm. At a growth rate of 0.5—2.0 mm/min. polycrystalline tubes 8—20 mm in diameter with a wall thickness of 1—2 mm were grown which may be used as sensing elements of a strain gage to measure mechanical stresses in solids. Orig. art. has: 2 figures. [JK]

SUB CODE: 20/
 SUBM DATE: 07Oct65/
 ORIG REF: 001/
 ATN PRESS: 4251.

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APPROVED FOR RELEASE: 06/05/2000

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