

PETROV, Valentin Pavlovich, starshiy inzhener; BUTKEVICH, Boris  
Georgiyevich, nauchnyy sotrudnik; RIVKIND, I.L., red.;  
ATROSHCHENKO, I.Ye., tekhn.red.

[Over-all mechanization in corn growing; work experience of  
N.F.Manukovskii, tractor operator on Kirov Collective Farm  
in Novaya Usman' District, Voronezh Province] Kompleksnaia  
mekhanizatsiia vozdeleyvaniia kukuruzy; opyt raboty trakto-  
rista kolkhoza imeni Kirova Novo-Usanskogo raiona Voro-  
nezhskoi oblasti N.F.Manukovskogo. Moskva, Izd-vo "Znanie,"  
1959. 30 p. (Vsesoiuznoe obshchestvo po rasprostraneniui  
politicheskikh i nauchnykh znani. Ser.5, Sel'skoe khoziaistvo,  
no.22) (12:9)

1. Voronezhskoye oblastnoye upravleniye sel'skogo khozyaystva  
(for Petrov). 2. Filial no TsChZ Vsesoyuznogo nauchno-issle-  
dovatel'skogo instituta ekonomiki sel'skogo khozyaystva (for  
Butkevich).

(Novaya Usman' District--Corn (Maize))

RZHASENSKIY, Mikhail Aleksandrovich; PETROV, V.P.; BUTKEVICH, B.G.;  
KOBLYAKOV, L.M., red.; GUREVICH, M.M., tekhn.red.

[Manukovskii experience in growing corn] Opyt Manukovskogo  
po vozdelyvaniu kukuruzy. Moskva, Gos.izd-vo sel'khoz.lit-ry,  
1959. 57 p. (MIRA 13:6)  
(Corn (Maize)) (Manukovskii, Nikolai Fedorovich)

ALEKSANDROV, N., kand. sel'skokhozyaystvennykh nauk; BUTKEVICH, B. G.  
nauchnyy sotrudnik.

The cost of labor has decreased threefold. Nauka i pered. op. v  
sel'khoz. 9 no.2:21-22 F '59. (MIRA 12:3)  
(Collective farms--Costs)

PETROV, V.P.; BUTKEVICH, B.G., nauchnyy sotrudnik

Four years' experience in the mechanized cultivation of corn.  
Zemledelie 8 no.2:63-69 F '60. (MIRA 13:5)

1. Starshiy inzhener Voronezhskogo oblastnogo upravleniya sel'skogo khozyaystva (for Petrov), 2. Filial po TsChZ Vsesoyuznogo nauchno-issledovatel'skogo instituta sel'skogo khozyaystva (for Butkevich).  
(Corn(Maize)) (Agricultural machinery)

GORYACHKIN, M.I., kand.ekon.nauk, nauchnyy sotrudnik; RUSAKOV, G.K.,  
kand.sel'skokhoz.nauk, nauchnyy sotrudnik; MASHKEVICH, H.G.,  
kand.sel'skokhoz.nauk, nauchnyy sotrudnik; KLADCHIKOV, S.M.,  
kand.sel'skokhoz.nauk, nauchnyy sotrudnik; NOVOZHILOV, V.F.,  
kand.sel'skokhoz.nauk, nauchnyy sotrudnik; ALEKSANDROV, N.P.,  
kand.sel'skokhoz.nauk; BUTKEVICH, B.G., kand.sel'skokhoz.  
nauk; KORNEV, K.G., kand.sel'skokhoz.nauk; GREBTSOV, P.P.,  
red.; PEVZNER, V.I., tekhn.red.; TRUKHINA, O.N., tekhn.red.

[Plotting technological charts] Kak sostavit' tekhnologicheskie  
karty. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 78 p.

(MIRA 14:2)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut  
ekonomiki sel'skogo khozyaystva. 2. Vsesoyuznyy nauchno-issle-  
dovatel'skiy institut ekonomiki sel'skogo khozyaystva (for  
Goryachkin, Rusakov, Mashkevich, Kladchikov, Novozhilov).  
(Farm management)

BUTKEVICH, G.A.

Characteristics of hemodynamics in elderly and senile persons  
with normal and increased arterial pressure. Vop. geron. i  
geriat. 4:202-208 '65. (MIRA 18:5)

1. Institut gerontologii AMN SSSR, Kiyev.

BUTKEVICH, Roman Veniaminovich, kand.tekhn.nauk; SIDOROV, Ivan Nikolayevich, kand.tekhn.nauk; YACHMENEV, Viktor Ivanovich, inzh.; Primalni uchastiye: SERGEYEV, F.N., kand.tekhn.nauk; BUTKEVICH, G.R., inzh.; TERESHKIN, S.V., inzh. GAPANOVICH, L.N., otv.red.; ZHUKOV, V.V., red.izd-va; SHKLYAR, S.Ya., tekhn.red.; GALANOVA, V.V., tekhn.red.

[Use of the underground method for the mining of Ural coal deposits]  
Razrabotka ugol'nykh mestorozhdenii Urals podzemnym sposobom. Moskva,  
Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 323 p.  
(MIRA 14:1)

(Ural Mountains--Coal mines and mining)

BUYANOV, Yu.D., kand. tekhn. nauk; BUTKEVICH, G.R., inzh.

Conveying in open-cut mining of rock products abroad.

Stroi. mat. 9 no.8:36-39 Ag'63.

(MIRA 17:5)



BUTKEVICH, G.R., gornyy inzh.

Ways of increasing the width of the siding in conveyer trans-  
portation. Gor. zhur. no.6:19-20 Je '64. (MIRA I7:11)

BUYANOV, Yu.D., kand. tekhn. nauk; BUTKEVICH, G.R., inzh.

Determining some work parameters of ribbon conveyors with  
grooved and smooth ribbon during the transportation of rock  
products. Sbor. trud. NIIZHelezobetona no.8:102-114 '63  
(MIRA 18:1)

BUTKEVICH, G.R., inzh.

Determining the permissible loss of minerals in pillars in  
inner piling. Sbor. trud. NIIZHelezobetone no.8:124-130 '65  
(MIRA 18:1)

BUTKEVICH, G.V.

Subject : USSR/Electricity AID P - 1452  
Card 1/2 Pub. 27 - 3/36  
Author : Butkevich, G. V., Doc. of Tech. Sci., Prof.  
Title : Contemporary problems of circuit-breaker construction  
Periodical : Elektrichestvo, 2, 13-17, F 1955  
Abstract : The author states that the All-Union State Standard for circuit breakers (GOST 687-41) is in many respects out of date, in particular as concerns testing. This is because the rapid development of large electrical networks, the interconnection of different local networks, as well as the construction of increasingly more powerful power stations in the USSR entails a continuous growth of the short-circuit powers which must be interrupted by circuit-breakers. Existing standards do not provide for such important characteristics as the rate of voltage recovery and natural frequencies which the author proposes

AID P - 1452

Elektrichestvo, 2, 13-17, F 1955

Card 2/2 Pub. 27 - 3/36

to include in revised standards. He also proposes to introduce tests of interrupting capacity with symmetrical currents only, but admitting the presence of non-periodic components of the order of 10 to 15 percent. Other recommendations concern the determination of temperature stability and elaboration of new methods of indirect testing. Three tables, 2 non-Russian references (1948, 1952).

Institution: All-Union Institute of Electrical Engineering im. Lenin

Submitted : D 10, 1954

*E. V. ...*

Subject : USSR/Electricity AID P - 3026

Card 1/2 Pub. 27 - 13/33

Authors : Butkevich, G. V., Dr. of Tech. Sci., Prof. and L. K. Greyner, Eng.

Title : Prospects of development and basic problems in the field of construction of circuit breakers

Periodical : Elektrichestvo, 7, 73-80, J1 1955

Abstract : The authors consider it necessary to increase the breaking capacity of Soviet-built circuit breakers for the 35, 110, 220 and 400 kv transmission lines. For example, the circuit breakers for 400 kv should have a breaking capacity of  $15 \cdot 10^6$  to  $20 \cdot 10^6$  kva. Of particular importance is the problem of constructing a circuit breaker for 13.8 to 15-kv generator with  $3.5 \cdot 10^6$  to  $4 \cdot 10^6$  kva of breaking capacity, and with a 10,000a nominal current. This type is needed for the new Siberian hydroelectric power stations. The difficulty of construction of

Elektrichestvo, 7, 73-80, J1 1955

AID P - 3026

Card 2/2 Pub. 27 - 13/33

such circuit breakers consists in providing testing possibilities for that breaking capacity. The authors indicate the direction of the future development of circuit breaker construction in the USSR. Two tables, 3 photographs.

Institution : All-Union Electrical Engineering Institute im. Lenin, and Plant "Elektroapparat".

Submitted : My 4, 1955

HAMMARLUND, P.; YABLONKO, S.I. [translator]; BUTKEVICH, G.V., professor,  
doktor tekhnicheskikh nauk, redaktor; BELOYSOV, M.M., redaktor;  
LARIONOV, G.Ye., tekhnicheskii redaktor

[Recovery voltage on contacts of circuit breakers] Vosstanavlivaiushcheesia napriazhenie na kontaktakh vykliuchatel'ia. Perevod s angliiskogo S.I. Iablonko. Pod red. G.V. Butkevicha. Moskva, Gos. energ. izd-vo, 1956. 296 p. (MLRA 9:7)  
(Electric circuit breakers)



BUTKEVICH, G.V., [translator], prof., red.; BRONSHTEYN, A.M., red.; VORONIN,  
K.P., tekhn. red.

[High-voltage circuit breakers] Vykliuchateli vysokogo napriazhenia.  
Pt.1. [Steel clad breakers for 69-330 kv.] [Translations from U.S.  
periodicals] Bakovye vykliuchateli na napriazhenia 69-330 kv.  
Moskva, Gos. energ. izd-vo. 1958. 238 p. (MIRA 11:9)  
(Electric circuit breakers)

GERSTSONOVICH, S. [Gerszonowicz, S.]; BRONSHEYN, A.M. [translator];  
BUPKEVICH, G.V., prof., red.; MIKHAYLOV, V.V., red.; VORONIN,  
K.P., tsEhn.red.

[High-voltage a.c. circuit breakers] Vykliuchateli peremennogo  
toka vysokogo napriazhenia. Moskva, Gos.energ.izd-vo, 1958.  
535 p. Translated from the English. (MIRA 13:7)  
(Electric circuit breakers)

SOKOLOV, Nikolay Nikolayevich; ANDRIANOV, K.A., red.; AKOPYAN, A.A., red.;  
BIRYUKOV, V.G., glavnyy red.; BUTKEVICH, G.V., red.; GRANOVSKIY, V.L., red.;  
GERTSENBERG, G.R., red.; ZABYRINA, K.I., red.; KALITVYANSKIY, V.I., red.;  
KLYARFEL'D, B.N.; SAKOVICH, A.A.; TIMOFEYEV, P.V.; FASTOVSKIY, V.G.;  
TSEYROV, Ye.M.; FRIDMAN, A.Ya.; SHEMAYEV, A.M.; TIMOKHINA, V.I., red.

[Methods for the synthesis of organopolysiloxanes] Metody  
sinteze poliorganosiloksanov. Moskva, Gos.energ. izd-vo. 1959.  
198 p. (Moscow. Vsesoiuznyi elektrotekhnicheskii institut.  
Trudy, no.66)

(Siloxanes)

(MIRA 12:5)

BUTKEVICH, G.V., prof., red.; OZERSKIY, V.A., red.; BORUNOV, N.I.,  
tekhn.red.

[High-voltage cutouts; reports of the International Conference  
on Large Electric Systems] Vykliuchateli vysokogo napriazhe-  
nia; doklady Mezhdunarodnoi konferentsii po elektricheskim  
sistemam. Pod red.G.V.Butkevicha. Moskva, Gos.energ.izd-vo.  
No.3. 1959. 127 p. (MIRA 13:3)

1. International Conference on Large Electric Systems. Paris,  
1958.

(Electric cutouts)

EGEL', Lev Yevgen'yevich; BUTNEVICH, G.V., otv. red.; PARTSEVSKIY,  
V.N., red.izd-va; PRÖZOROVSKAYA, V.L., tekhn. red.

[Ferrous, nonferrous, and rare metal ores and their industrial  
importance] Rudy chernykh, tsvetnykh i redkikh metallov i ikh  
promyshlennoe znachenie. Moskva, Gosgortekhnizdat, 1962. 199 p.  
(MIRA 15:5)

(Ores)

S/105/62/000/001/005/006  
E194/E455

AUTHORS: Butkevich, G.V., Doctor of Technical Sciences, Professor,  
Shmatovich, V.V., Candidate of Technical Sciences

TITLE: A unit- type spark-gap valve lightning-arrester with  
100% recovery strength


PERIODICAL: Elektrichestvo, no.1, 1962, 55-58

TEXT: Existing magnetic-valve type 500 kV arresters can limit the overvoltage to 2.34 x phase voltage and suppress follow-up currents of up to 1500 A at a recovery voltage of 1.6 x phase voltage. Higher recovery voltages, which are required, can be obtained by ensuring uneven distribution of voltage between spark gaps during breakdown and uniform voltage distribution during current suppression. The principle has been adopted in protecting series capacitor banks in Sweden and in the USSR, but only to reduce the scatter of breakdown voltage of large gaps. A schematic diagram of the device is shown in Fig.1; the two main gaps 1 and 2 are each shunted by equal high-value resistors 3 and 4. The auxiliary gap 5 has a lower breakdown voltage than the main gaps and breaks down first (provided that its breakdown voltage is more than half the main gap breakdown voltage),  
Card 1/43

S/105/62/000/001/005/006  
E194/E455

A unit-type spark-gap valve ...

causing breakdown of the main gap and immediate extinction of gap 5. The recovery voltage of the two main gaps is unaffected by gap 5 because the current through the latter, limited by the resistance 6, is small and it recovers its breakdown strength quickly. The construction of an arrester based on this principle is described. The two main gaps and associated resistors form a unit and these units can be built up into a multiple-gap arrester. To achieve 100% recovery voltage, the breakdown voltage of each main gap should be not more than 50%. One hundred percent recovery voltage can easily be achieved in about 3.5 microseconds, after a current impulse of 1500 A for 10 microseconds. The spark gaps in the units are made annular and permanent magnets are fitted above and below each element to set up a magnetic field in the spark gaps. Ceramic resistors are used. An experimental prototype gave a breakdown voltage of 7.82 kV max  $\pm$  2.5% across two main gaps; the auxiliary gap broke down at a voltage of 5.92 kV max  $\pm$  5.5%. After passing a current of 1500 A for ten microseconds, full recovery voltage was maintained. The recovery time of 4.25 microseconds could be increased by reducing the breakdown voltage of the auxiliary gap.



A unit-type spark-gap valve ...

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but this would increase the total number of gaps required. The test results can provide a basis for designing arresters for use in systems of 330 to 500 kV and it will be possible to increase the recovery voltage to 2.17 x the phase voltage with a breakdown voltage of 2.34 x the phase voltage. In combined arresters for 330 kV, the breakdown voltage of 2.5 times the phase voltage  $\pm$  7% the recovery voltage may be increased to 2.32 times the phase voltage. This will make the arresters most reliable under all possible internal overvoltage conditions in 330 and 500 kV transmission systems. There are 5 figures and 8 references: 7 Soviet-bloc and 1 non-Soviet-bloc. The reference to an English language publication reads as follows:  
Ref.8: Ahlgren-Gundmark. Self-extinguishing gaps in large series capacitor stations. CIGRE, 1956, report 317.

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut im. Lenina  
(All-Union Electrotechnical Institute im. Lenin)

SUBMITTED: October 21, 1961

Card 3/4 3



SIROTINSKIY, L.I.; POLIVANOV, K.M.; NETUSHIL, A.V.; BABIKOV, M.A.;  
SYROMYATNIKOV, I.A.; DROZDOV, I.G.; FEDOSEYEV, A.M.; CHILIKIN, M.G.;  
BESSONOV, L.A.; BUTKEVICH, G.V.; ZHEKULIN, L.A.; KEYMAN, L.R.;  
GORTINSKIY, S.M.; SMIRNOV, A.D.; MAMIKONYANTS, L.G.; PETROV, I.P.

Vsevolod IUr'evich Lomonosov; obituary. Elektrichestvo no.12:88  
D '62. (MIRA 15:12)

(Lomonosov, Vsevolod IUr'evich, 1899-1962)

AKOPYAN, A.A.; BIRYUKOV, V.G.; BUTKEVICH, G.V.; KOZHUKHOV, V.K.;  
KRAYZ, A.G.; NAYASHKOV, I.S.; SIROTINSKIY, L.I.; SAPOZHNIKOV, A.V.;  
SYROMYATNIKOV, I.A.; RABINOVICH, S.I.

A.V. Panov; on his 60th birthday. Elektrichestvo no.5:92  
My '63. (MIRA 16:7)

(Panov, Aleksei Vasil'evich, 1903-)

BUTKEVICH, G. V.; BRONSHTEYN, A. M.; BRON, O. B.; ZAKHAROV, S. N.; KAPLAN, V. V.; AKODIS,  
M. M.; MASLENNIKOV, D. S.; RUDNYI, V. M.

"Some Problems of Constructing High Power Circuit-Breakers."

report submitted for Intl Conf on Large Electric Systems, 20th Biennial Session,  
Paris, 1-10 Jun 64.

ULISSOVA, I.N.; BUTKEVICH, G.V., doktor tekhn. nauk, prof., red.;  
ASHKENAZI, E.L., red.; SHKLYAR, S.Ya., tokhn.red.

[International electrotechnical vocabulary] Mezhdunarod-  
nyi elektrotekhnicheskii slovar'. Moskva, Fizmatgiz.  
Group 15. [Switchgear (distribution boards and devices  
for commutation, regulation and control)] Kommutatsion-  
naia apparatura (raspredelitel'nye shchity i apparaty dlia  
kommunikatsii, upravleniia i regulirovaniia. 1963. 163 p.  
(MIRA 17:3)

1. International Electrotechnical Commission.

BRON, O. B.; BRONSHTEYN, A. M.; BUTKEVICH, G. V.; ZAKHAROV, S. N.; KAPLAN, V. V.; AKODIS, M. M.; MASLENNIKOV; RUDNYI, V. M.

"Some Problems of Constructing High Power Circuit-Breakers."

report submitted for 20th Biennial Sess, Intl Conf on Large Electric Systems, Paris, 1-10 Jun 64.

BIRYUKOV, V.G.; BUTKEVICH, G.V.; KOZHUKHOV, V.K.; PANOV, A.V.;  
SIROTINSKIY, L.I.

Artavazd Armenkovich, 1904 - ; on his 60th birthday. Elektrichestvo  
no.4:93 Ap '64. (MIRA 17:4)

BORISENKO, N.I.; BUTKOVICH, G.V.; VORONETSKIY, B.B.; VASIL'YEV, D.V.;  
DROZDOV, H.G.; DUBINSKIY, I.A.; ZAIKIN, A.M.; YAKOVLEV, A.S.;  
KOSTENKO, M.P.; KUZNETSOV, P.I.; KULEBAKIN, V.S.; MAMIKONYANTS,  
L.G.; MEL'NIKOV, N.A.; NEYMAN, L.P.; PETROV, I.I.; RABINOVICH, S.I.;  
SAMOKHVALOV, V.A.; SOLODOVNIKOV, V.V.; STEKLOV, V.Yu.; SYROMYATNIKOV,  
I.A.; FEDOSEYEV, A.M.; CHILIKIN, M.G.; SHATALOV, A.S.; ZHEKULIN, I.A.

Petr Ivanovich Vesvodin, 1882; on his 80th birthday. Elektrichestvo  
no.9.92 S '64. (MIRA 17:10)

AYZENBERG, I.S.; ARONOVICH, I.S.; AFANAS'YEV, V.V.; BRON, O.B.; BUTKEVICH, G.V.;  
GOLUBEVA, V.P.; GURVICH, V.V.; ZALESSKIY, A.M.; ZAKHAROV, S.N.;  
KAPLAN, V.V.; KOCHENOVA, A.I.; KUKKOV, G.A.; LYSOV, N.Ye.; MEDVED-  
SKIY, I.K.; MESSERMAN, G.T.; PETROVA, T.G.; FILIPPOV, Yu.A.;  
KHOLYAVSKIY, G.B.; SHERAUD, M.Ye.; SHKLYAR, B.N.

L.K. Greiner. Elektrotehnika 35 no.2:p.3 of cover F '64.  
(MIRA 17:3)



BUTKEVICH, G.V., doktor tekhn. nauk, prof. (Moskva); CHERNYSHEV, N.M., kand.  
tekhn. nauk (Moskva)

Present-day problems in designing and testing high-voltage switches.  
Elektrichestvo no.7:22-30 J1 '65. (MIRA 18:7)

BUTKEVICH, I.V.

PROCESSES AND PROPERTIES INDEX

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Switch with solid gas-generating dielectric for 6-10 KV, 200-300 X 10<sup>3</sup> KVA. Butkevich, I. V., and Bronshtein, A. M. Elektrichostvo (No. 5) 35-43 (1946) In Russian. - A novel type of switch has been developed to replace oil-filled switchgear, particularly suitable for frequent operation (electric furnaces). The dielectric is polymethylmethacrylate. Its advantages are: high quenching qualities, low specific gas generation per kW/sec, good electrical and mechanical properties. Weak points are: low thermal stability, large amount of nitrogen liberated. It is possible to use the gas generated in the chamber walls for improved operation of the switch, blowing it across the chamber by means of buffer reservoirs. Transient effects are investigated, and self-resonances, critical capacitance and the "residual resistance" of the arc calculated. Several cross-sectional drawings, oscillograms and curves are presented.

A. L.

ASM-51A METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND ORDERS      PROCESSES AND PROPERTIES INDEX      1ST AND 2ND ORDERS

BUTKEVICH, K. S.      18

CA

Precooling of air in oxygen plants. K. S. Butkevich and I. I. Tolmachevskii. *Arctogennoe Delo* 1946, No. 5/6, 35-7.—Compressed air in air-decompn. plants is cooled by passing it through water, which is cooled, in turn, by evapn. Evapn. is effected by discharging dry N into the water. The heat balance of such a cooling system is presented. M. Hosen

COMMON ELEMENTS      COMMON VARIANTS INDEX

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS      1ST AND 2ND ORDERS

GROUPS      MATERIALS INDEX      1ST AND 2ND ORDERS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Technical Consultation. Reply to Readers' Questions

67-~~58~~-3-15/18

the 1. stage of the compressor it would be possible to increase production figures by 12-15%.

1. Oxygen--Production
2. Industrial equipment--Performance

Card 2/2

AUTHOR: Butkevich, K. S., Engineer SOV/67-58-4-22/29

TITLE: Reply to Readers (5) (Otvety chitatelyam)

PERIODICAL: Kislород, 1958, Nr 4, p. 44. (USSR)

ABSTRACT: To: P. I. Anan'yev of Chusovoy, Perm'skaya oblast'.  
Question: Of what kind of steel are the valve caps of air- and oxygen compressors made, and what kind of thermal treatment should be applied in this case? Answer: Annular valve caps for the aforementioned compressors are made of steel of the type 30KhGS accordance with GOST ir 1542-54, steel assortment GOST 1542-54, quality 2, or from steel 3Kh13 in accordance with GOST 5632-51, steel assortment GOST 5582-50, quality 2. Thermal treatment: Steel 30KhGS is hardened at 870-890°C in oil for 30-45 minutes; dehardening at 250-275°C in air for 2-3 hours. - Steel 3Kh13: hardening at 1040-1060°C in oil for 25-35 minutes and dehardening at 350-400°C in air for 2-2,5 hours. The following is necessary for elastic band valves: A thermally treated band (according to GOST 2614-55) made from steel 70S2KhA (according to GOST 2285-43), or a band of steel U10A (according to GOST 1435-54). For oxygen

Card 1/2

Reply to Readers

SOV/67-58-4-22/29

compressors plates made from steel 2013 with a setting of brass LZnMts-59-1-1 are manufactured. The mechanical treatment of surfaces is not permissible.

Question: Is there a centralized production of valve plates or are special machines for their manufacture available ?

Answer: Neither is the case. They are produced by the works concerned themselves.

1. Compressors—Equipment    2. Steel—Applications    3. Steel—  
Materials    4. Steel—Processing

Card 2/2

AUTHORS: Consultants: Butkevich, K. S., Engineer, SOV/67-59-3-24/27  
Brodyanskiy, V. M., Candidate of Technical Sciences,  
Divinskiy, T. Z., Engineer

TITLE: Answers to the Readers (Otvety chitatelyam)

PERIODICAL: Kislород, 1959, Nr 3, p 53 (USSR)

ABSTRACT: Comrade Astaf'yev from Stalino, Donbass, asked the following questions: 1) Is it possible to replace the bronze bushes of the cylinders of the I and the II stage of the oxygen compressor 2RK-1.5/220 by bushes of stainless steel? Answer: yes, by bushes of stainless steel of the type 1Kh18N9T. 2) Which kind of bronze must be used for the production of the above mentioned bushes and how can the load stability of the bronze bush be increased? Answer: stability may be increased by chromium plating. In this case the type of the bronze is not important, also lithium-silicon-nickel of the type KL80-3L may be used. (K. S. Butkevich gave the answers).  
Comrade Sandrov from the Katav-Ivanovsk, Chelyabinsk Oblast', asked the questions: 1) Is it possible to apply a filter with a back-pressure valve to a tube which conducts the oxygen

Card 1/3

Answers to the Readers

SOV/67-59-3-24/27

which has penetrated through the stuffing box of the pump for liquid oxygen into the condenser? Yes, this arrangement would be very useful, only the valve must be applied behind the filter in order to prevent its pollution. 2) Must a unit of apparatus be inspected by the Gosgortekhnadzor after a carried out modification? Answer: no, this is not necessary. (V. M. Brodyanskiy gave the answers).

Comrade Reznikov asked the question: May the supply of an enterprise with liquid oxygen be organized with a monthly consumption of 30,000 normal-m<sup>3</sup> of gaseous oxygen? Which device may be used for the transportation and the gasification of liquid oxygen and where may the plan for a gasification plant be obtained? Answer: works with so-called oxygen consumption may be supplied with liquid oxygen by means of automobile tanks of the type ST-1300 with a volume of 1300 l, which is sufficient to cover the 24 hours' demand, daily from a near oxygen plant. The apparatus of the type UGZhK-1 which was worked out by the Giprokislород is recommended for the oxygen gasification for industrial purposes. More accurate data on this plant are given. The plan of this apparatus will be available in the Central Institute of Type Planning

Card 2/3



Answers to the Readers

SOY/67-59-3-24/27

(in Moscow, Spartakovskaya 2) at the beginning of the second half of every year.

Card 3/3

ZAYDEL', Rafail Ruvimovich; BUTKEVICH, K.S., dotsent, retsenzent;  
BYSTRITSKAYA, V.V., inzh., red.; SAVEL'YEV, Ye.Ye., red.izd-va;  
EL'KIND, V.D., tekhn.red.

[Turbine expanders for oxygen plants] Turbodetandery kislородnykh  
ustanovok. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry,  
1960. 175 p. (MIRA 14:1)  
(Oxygen) (Refrigeration and refrigerating machinery)

ALEKSEYEV, L.A., inzh.; BUTKEVICH, K.S., inzh.

KPK-6 oxygen piston compressor. Trudy VNI IKIMASH no.4:65-86  
'61. (MIRA 15:1)

(Oxygen)  
(Compressors)



L 49200-65

ACCESSION NR AM5003777

aid for researchers and engineers and as a guide for students and graduate students specializing in cryogenic engineering.

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SUBMITTED: 15 Oct 64

SUB CODE: OP, TD

NO REF SOV: 200

OTHER: 113

COPIES 2/2

BUTKEVICH, K.S., inzh.; ALMESEYEV, L.A., inzh.; FISHAN, A.G., inzh.

Air and oxygen compressors with piston metal rings and emulsion  
lubrication. Trudy VNIITKIMASH no.8:108-129 '64.

(MIRA 1:10)

*BUTKEVICH, L. M.*

USSR / Mechanical Properties of Crystals and Polycrystalline  
Compounds.

E-9

Abs Jour : Ref Zhür - Fizika, No 4, 1957, No 9426

Author : Vasil'ev, L.I., Butkevich, L.M., Orekhov, Ye.I.

Inst : Siberian Physico-Technical Institute USSR

Title : Effect of Velocity and Degree of Plastic Tension on the Relaxation and Subsequent Deformation of Metals. I.

Orig Pub : Fiz. metallov i metallovedeniye, 1956, 2, No 1, 142-145

Abstract : A polycrystalline copper wire was stretched at a rate of 0.03 and 27% per minute to a deformation of 1.7, 7.6, 11.6, 19.5, and 29.5% and the relaxation of the stresses was observed for 30 minutes, after which the specimens were stretched at a rate of 0.03% per minute. Analogous experiments were carried out with aluminum up to deformations of 3.6 and 19% (the duration of relaxation amounted to 40 minutes). The experimental data obtained show that with increasing de-

Card : 1/2

USSR / Mechanical Properties of Crystals and Polycrystalline  
Compounds.

E-9

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9426

Abstract : degree of deformation there an increase in the difference of the initial stresses of the relaxation curves, obtained after deformation with two different speeds. The degree of preliminary deformation affects the course of the secondary stretching more when the speed and degree of deformations increase. The difference in the behavior of the metals after deformation is explained by the different assortment of distortions that take place in the first deformation.

Card : 2/2



SOV/139-58-6-1/29

AUTHOR: Butkevich, L.M.

TITLE: Oscillographic Study of Stress Relaxation in Aluminium after Plastic Extension with Different Velocities (Ostsillograficheskoye issledovaniye relaksatsii napryazheniya v alyuminii posle plasticheskogo rastyazheniya s razlichnymi skorostyami)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika, 1958, Nr 6, pp 3-8 (USSR)

ABSTRACT: <sup>1459</sup>The apparatus and method of carrying out the tests have been described previously (Ref 4 and 5). The test material was polycrystalline aluminium A00 having the composition Al 99.81%; Si 0.17%; Fe 0.02%. A relaxation coefficient  $\alpha$  and a velocity coefficient  $\gamma$  are defined by the relations

$$\alpha = \frac{\Delta\sigma}{\sigma\Delta t} \cdot 100 \quad \text{and} \quad \gamma = \frac{\sigma(v) - \sigma(v_0)}{\sigma(v_0)} \cdot 100$$

where  $\sigma$  is the stress at the instant of attaining a prescribed degree of deformation,  $\Delta\sigma$  is the fall in stress during the time interval following the start of

Card 1/2

Oscillographic Study of Stress Relaxation in Aluminium after  
Plastic Extension with Different Velocities

SOV/139-58-6-1/29

relaxation,  $\sigma(v_0)$  is the stress at a prescribed degree of deformation following extension with velocity  $v_0$  and  $\sigma(v)$  is the stress at the same degree of deformation following extension with velocity  $v > v_0$ . Curves are given showing the variation of  $\alpha$  with  $\Delta t$ , with  $\log v$  and with degree of deformation  $\epsilon$  and of  $\gamma$  with  $\log v$ . The main conclusions are: 1)  $\alpha$  falls with increasing  $\Delta t$ ; 2) for small  $\Delta t$ ,  $\alpha$  increases markedly with  $\log v$ ; 3) for small  $\Delta t$ , the  $\alpha - \epsilon$  curves have a maximum at intermediate deformation (approximately 12%). Thanks are expressed to Professor M.A. Bol'shanina for discussion of results. There are 5 figures and 5 Soviet references.

ASSOCIATION: Sibirskiy Fiziko-Tekhnicheskiy Institut pri Tomskom Gosuniversitete imeni V.V. Kuybysheva (Siberian Physico-Technical Institute, Tomsk University imeni V.V. Kuybyshev)

SUBMITTED: 5th April 1958

Card 2/2

S/139/60/000/005/011/031  
E073/E135

AUTHOR: Butkevich, L.M.

TITLE: On Negative Stress Relaxation in Nickel ✓

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika,  
1960, No. 5, pp 64-68

TEXT: In pure metals negative stress relaxation (stress increase) has so far not been observed in nickel, although it is to be anticipated that, under certain conditions, it will occur in the case that processes take place in the metal which are accompanied by a volume effect. Investigations by Clarebrough, Hargreaves and West (Ref. 19) on 99.6% purity nickel and by Gertsriken and Novikov (Ref. 20) on 99.5% purity nickel, indicate that during annealing at temperatures of approximately 200-300 °C a rapid increase in the density occurs, the magnitude of which is of the order of  $10^{-4}$ . These authors associate this phenomenon with the elimination at these temperatures of vacancies that occur during deformation. The present author considered it of interest to investigate stress relaxation in deformed nickel in the temperature range which encompasses the temperatures of intensive cancellation of vacancies. For the investigations the specimens were prepared  
Card 1/3 ✓

S/139/60/000/005/011/031  
E073/E135

On Negative Stress Relaxation in Nickel

from 1 mm diameter nickel wire, gauge length 50 mm, of the following chemical composition: Ni + Co - 99.8. C - 0.04, Si - 0.006, S - 0.017, Cu - 0.06, Fe - 0.08%; there was no Mn or Mg content. Prior to the tests all the specimens were annealed in vacuum for 30 minutes. The investigations were carried out on a test rig described in an earlier paper (same journal, 1958, No.6, p. 3) which was additionally fitted with a 3-section electric furnace with a metallic screen. All the specimens were preliminarily stretched by 8% with a speed  $v_1 = 0.03$ ,  $v_2 = 0.026$ ,  $v_3 = 2.4$ ,  $v_4 = 27.2$ ,  $v_5 = 240\%/min$ , after which stress relaxation was investigated. The tests were carried out at 21, 200, 250 and 350 °C. Individual tests were also made at 150 and 350 °C for the purpose of gaining more accurate data on the elongation curves; each curve was plotted on the basis of the results of at least 7 specimens. Fig. 1 shows an oscillogram of a section of the elongation curve for nickel at 200 °C with a speed of 0.026%/min. The determined stress relaxation curves are plotted in Figs 2 and 3. An anomaly of  
Card 2/3

S/139/60/000/005/011/031  
E073/E135

On Negative Stress Relaxation in Nickel

the dependence on speed of the flow curves of Ni was observed at 200 °C and a jump-like character of the deformation was observed in the temperature range 150-300 °C. A negative stress relaxation in the Ni was observed in the temperature range 200-250 °C and this is attributed to the shortening of the specimen caused by reduction in volume and is associated with the elimination of vacancies and rising diffusion of admixtures. Acknowledgements are made to Professor Doctor M.A. Bolshanina for directing the work and for commenting on the paper. There are 3 figures and 23 references: 18 Soviet, 4 English and 1 German.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V.V. Kuybysheva  
(Siberian Physics and Engineering Institute at Tomsk State University imeni V.V. Kuybyshev)

SUBMITTED: December 9, 1959

Card 3/3

BUTKEVICH, L.M.; KONDRAT'YEV, P.A.; BOL'SHANINA, M.A.

Magnitude of the ~~energy~~ of packing defects in lead. Fiz.met.1  
metalloved. 14 no.5:783-784 N '62. (MIRA 15:12)

1. Sibirskiy fiziko-tekhnicheskij institut.  
(Crystal lattices--Defects)

BUTKEVICH, L.M.; GRIDNEV, M.P.:

Effect of low-temperature annealing on the resistance to creep  
of manometric tubular springs. Metalloved. i term. obr. met.  
no.11:44-46 N '63. (MIRA 16:11)

1. Sibirskiy fiziko-tekhnicheskiy nauchno-issledovatel'skiy  
institut.

POPOV, L.Ye.; BUTKEVICH, L.M.; KOZHEMYAKIN, N.Ye.; ALEKSANDROV, N.A.

Upper temperature boundary in the phenomena of jumplike flow  
in alloys and solid solutions. Fiz. met. i metalloved. 16 no.  
3:457-462 S '63. (MIRA 16:11)

1. Sibirskiy fiziko-tehnicheskii institut.



BUTKEVICH, L.M.; MAKOGON, M.B.; OSUKHOVSKIY, V.E.

Effect of external stresses during the annealing of cold-worked  
L62 brass on its mechanical properties. Fiz. met. i metalloved.  
16 no.4:583-588 0 '63. (MIRA 16:12)

1. Sibirskiy fiziko-tekhnicheskii institut.

BUTKEVICH, L.M.; GORBACHEV, F.Ya.; GRIDNEV, M.P.; MAKOGON, M.B.; PYATNICHUK,  
G.K.

Apparatus for creep tests of manometer tubular springs. Zav.lab. 29  
no.12:1500-1501 '63. (MIRA 17:1)

1. Sibirskiy fiziko-tekhnicheskij nauchno-issledovatel'skiy institut.

POPOV, L.Ye.; BUTKEVICH, L.M.; ALEKSANDROV, N.A.

Role of the viscous motion of a dislocation in the temperature-dependent resistance to deformation in solid solutions of substitution. Izv. vys.ucheb.zav.;fiz.no. 2:126-130 '64.  
(MIRA 17:6)

1. Sibirskiy tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.

L 26634-66 EWT(m)/EWP(w)/T/EWP(t) IJP(c) JD/JH

ACC NR: AP5025338

SOURCE CODE: UR/0126/65/ 020/003/0469/0472

AUTHOR: Panin, V. Ye.; Dudarev, Ye. F.; Butkevich, L. M.; Dolmatova, R. P.

ORG: Physico-Technical Institute of Siberia im. V. D. Kuznetsov (Sibirskiy fiziki-tehnicheskii institut)

TITLE: The effect of short-range order on the mechanical properties of solid solutions

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 3, 1965, 469-472

TOPIC TAGS: solid solution, copper alloy, aluminum alloy, zinc alloy, ordered alloy, solid mechanical property, material deformation, crystal dislocation

ABSTRACT: The authors present a more systematic investigation of solid solutions Cu-Al and Cu-Zn and express their findings on the causes of various effects of short-range order on the mechanical properties of the alloys. In order to confirm the assumption that various mechanical properties which result from the various degrees of alloy deformation will depend on the degree of short-range order, an investigation used the alloys Cu+17.3 mole% Al and Cu+38 mole% of Zn which have a considerable short-range order. The resistance of alloy to

Card 1/2

UDC: 548.0:539

L 26634-66

ACC NR: AP5025338

deformation as a function of temperature was also studied. The character of the effect of short-range order changes according to the resistance of deformation and degree of deformation. The effect of short-range order on the resistance of deformation with increase of degree of deformation at first decreases and then becomes inversely proportional to the Fischer effect. Similar results were obtained with Cu-Zn alloy. It was shown that the effect of character of the structural dislocation on the resistance of deformation greatly depends on the intensity of the system. Measurements of macrosolidity confirms that in this system of intensity the character of structural dislocation is significant and causes a strong abnormal dependence of the indicated characteristics on the degree of short-range order. Orig. art. has: 2 fig.

SUB CODE: 11,20/SUBM DATE: 05Oct64/ ORIG REF: 006/ OTH REF: 012

Card 2/2

BUSHNEV, L.S.; BUTKEVICH, L.M.; PANIN, V.Ye.

Electron microscopy of the effect of low-temperature annealing on the structure of cold-worked Br. 27 and L62 alloys. Fiz.-met. i metalloved. 20 no.5:691-696 N. 165.

(MIRA 18:12)

1. Sibirskiy fiziko-tekhnicheskoy institut imeni V.D.Kuznetsova.  
Submitted November 21, 1964.

L 38472-66 EWT(d)/EWT(m)/EWP(w)/T/EWP(t)/EII/EWP(k) LJP(c) JH/EM/HW/JG/JD  
ACC NR: AP6019497 (A) SOURCE CODE: UR/0129/66/000/006/0003/0007

AUTHOR: Shteyn, S. G.; Sukhovarov, V. F.; Butkevich, L. M.

50  
47  
B

ORG: Siberian Physico-technical Institute (Sibirskiy fiziko-tekhnicheskii institut)

TITLE: Recovery of the elastic modulus in type EI702 alloy

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 6, 1966, 3-7

TOPIC TAGS: elastic modulus, high alloy steel, young modulus/  
EI702 high alloy steel

ABSTRACT: The alloy under consideration has the following composition: 35.6% nickel; 12% chromium; 1.5% aluminum; 3% titanium; 0.8% manganese; 0.38% silicon; 0.025% carbon; remainder iron. The Young modulus was determined by the dynamic method. The value of the modulus was calculated by the formula:

$$E = 0,9463184 \cdot 10^{-8} \frac{l}{t^2} \rho v^2,$$

where  $l$  is the length of the sample;  $t$  is its thickness;  $\rho$  is the density of the material;  $v$  is the vibration frequency of the sample. The absolute value of the modulus was determined with an error of

Card 1/2

UDC: 669.14.018.58:539.32

L 38472-66

ACC NR: AP6019497

3

0.8-1.5%. The change in the modulus was studied with stepwise annealing of the samples which had been previously quenched in water and had also been subjected to cold working by rolling. Based on the experimental data, a figure shows the dependence of the Young modulus on the annealing temperature for alloy EI702 previously deformed by 40%, and a second figure shows the same for a hardened alloy. As expected, deformation noticeably lowers the Young modulus. Another figure illustrated the Young modulus as a function of the annealing temperature of samples which had been deformed by rolling by 20%, after ageing at different temperatures. Orig. art. has: 5 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 001

Card 2/2 pb



Nonmetallic inclusions in ingots of rimming-steel deoxidized by different methods. S. I. Popel, G. F. Konovalov, and N. A. Butkevich (Met. Works, Seversk). *Izv. Vysshikh Ucheb. Zavedeni, Chernaya Met.* 1958, No. 5, 51-7. —A study was made of chem. and phase compn. of nonmetallic inclusions in 650-kg. ingots of 0.13-0.16% C rimming steel deoxidized in the furnace (a) with ferromanganese, and (b) ferromanganese and ferrosilicon. The inclusions were extd. and studied in relation to the depth in the ingot. The results showed that introduction of ferrosilicon (2 kg./ton) decreases the amt. of inclusions to about 1/3. Their phase compn. is also altered by ferrosilicon addns.: the content of high-m.-p. inclusions, such as corundum and spinel, is decreased, while the quantity of low-melting silicates increases. Explanation of this is found in the nature of the emulsions formed. Introduction of ferrosilicon increases the emulsion concn. and lowers the viscosity of the dispersed phases and their adhesion to metal, thereby forming larger particles and facilitating their removal from the metal. 23 references. B. N. Daniloff

Distr: 4B20

BUTKEVICH, O.M.

Sympathetic and vascular asymmetries in myocardial infarct and chronic coronary insufficiency. Sov.med. 22 no.3:42-47 Mr '58.

(MIRA 11:4)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. - prof. A.A.Shelagurov) lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.

(MYOCARDIAL INFARCT, manifest.

vegetative-vasc. asymmetries (Rus))

(CORONARY DISEASE, manifest.

vegetative-vasc. asymmetries in chronic insuff. (Rus))

BUTKOVICH, O. M.

Early diagnosis of Bekhterev's disease. Terap. arkh. 34 no.5:  
76-83 '62. (MIRA 15:6)

1. Iz kafedry fakul'tetskoy terapii (zav. - deystvitel'nyy chlen  
AMN SSSR prof. A. I. Nesterov) II Moskovskogo meditsinskogo  
instituta imeni N. I. Pirogova.

(SPINE--DISEASES)

BUTKEVICH, O.M.

Clinical and pathogenic interrelations between Bechterew's  
disease and infectious nonspecific polyarthritits. Vop. revm.  
3 no.3: 23-30 JI-S'63 (MIRA 17:3)

1. Iz kafedry fakul'tetskoy terapii ( zav. - deystvitel'nyy  
chlen AMN SSSR prof. A.I.Nesterov) lechenogo fakul'teta II  
Moskovskogo meditsinskogo instituta imeni N.I.Pirogova.

KRIKUNOV, V.P.; BUTKEVICH, O.M.; TUPIKIN, G.V.

Results of treating infectious nonspecific polyarthrits with a combination of preparations (deltabutazolidine, reosolone, elastol). Vop. revm. 3 no.3:37-40 J1-S'63 (MIRA 17:3)

1. Iz kafedry fakul'tetskoy terapii ( zav. - deystvitel'nyy chlen AMN SSSR prof. A.I. Nesterov) lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta imeni Pirogova.

KOTIK, I.; ROGOV, V.; GROMOV, P.; FEYGIN, L.; SHCHERBAKOV, V.; ROGOVER, M.;  
BUTKEVICH, P.

Innovators of the Leningrad Metalworks to the 22d Congress of the  
CPSU. Mashinostroitel' no.9:30-32 S '61. (MIRA 14:10)  
(Leningrad--Machinery industry--Technological innovations)

BUTKEVICH, P.I., ENGINEER: SMIRNOV, V.I., Engineer

"Production of Cutters with High Speed Steel Tips," Stanki i Instrument, 10,  
No. 12, 1939.

Report U-1505, 4 Oct. 1951.

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307730003-8

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307730003-8"



S/117/69/096/095/004/013  
A004/A002

AUTHOR: Butkevich, P. I., Engineer

TITLE: A New Soldering Method of Hard-Alloy Bits

PERIODICAL: Mashinostroitel', 1960, No. 5, p. 20

TEXT: Hard-alloy tool bits of circular cross-section operating under heavy-duty conditions are breaking and cracking as a result of great residual stresses which arise during the soldering process. In order to reduce these stresses it is recommended to use a compensating interlayer of permalloy or an iron netting. The use of iron nettings at the Leningradskiy metallicheskiy zavod (Leningrad Metal Plant) made it possible to reduce the residual stresses and cut down the cases of hard-alloy bits cracking during the grinding and in operation. To eliminate the existing deficiencies of the latter method and to find out new methods of fastening the bits to the tool holder, tests were carried out at LMZ, in which the hard-alloy bits were covered at their soldering faces by the galvanic method with different metals - copper, chromium, nickel, zink, tin, cadmium and iron. After preliminary tests, 100 bits covered with a 0.08-010 mm layer of electrolytic iron were soldered on to holders and

Card 1/2

A New Soldering Method of Hard-Alloy Bits

S/117/60/000/005/004/013  
A004/A002

tested under operational conditions. The results were satisfactory. Not a single case of cracking or breaking off of the hard-alloy bits was recorded. The electrolytic iron plating of hard-alloy bits is effected in an electrolyte containing 240-260 g/liter of iron sulfate and 45-55 g/liter of sodium chloride. The tub is made of quartz glass or iron, covered on the inside with acid-proof enamel. The temperature of the bath during iron-plating should be in the range of 98-100°C at a current density of 4-5 amp/dm<sup>2</sup>. The anodes are made of mild "15KП" (15KP) iron. There is 1 photo. ✓

Card 2/2

5.131D

1087, 1208 1043

24452  
S/081/61/000/007/005/010  
B107/B207

AUTHORS: Butkevich, P. I., Sazonov, G. A.

TITLE: Electrolytic iron plating of hard-alloy plates

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 7, 1961, 329, abstract 7K205 (7K205) (Sb. "Nekotoryye vopr. tekhnol. proiz-va turbin" (Tr. Leningr. metallich. z-da, no. 7) M. - L., 1960, 300 - 310

TEXT: Iron plating was found to protect hard alloys from oxidation while being heated during the soldering process, to increase the strength of the soldered joint, and to eliminate tensions at the joint due to the cutters cooling down after soldering; thus, the risk of cracking in the hard-alloy plate is reduced. The electrolyte has the following composition in g/l: 250 - 350  $\text{FeSO}_4 \cdot 7\text{H}_2\text{O}$ , 50 NaCl; the tempera-

ture is approximately 100°C, the pH about 2.5;  $D_c = 4 - 5 \text{ a/dm}^2$ ; anodes: steel 2 or steel 3. A technological scheme of iron plating is provided. [Abstracter's note: Complete translation.]  
Card 1/1

BUTKEVICH, P.I., inzh.

Induction hardening of high-module gears. Metalloved i term. obr.  
met. no. 7-56-57 J1 '61. (MIRA 14:6)  
(Gearing)  
(Induction hardening)

GLIKMAN, L.A., doktor tekhn.nauk; BUTKEVICH, P.I., inzh.; ASHINA, Ye.V.,  
inzh.

Effect of hydrogen absorption during chromium plating on the  
brittle strength of rapid steel. Trudy IMZ no.9:207-213 '62.  
(MIRA 16:6)

(Steel—Hydrogen content) (Chromium plating)

BUTEVICH, R.V.; SHUSHKOVSKAYA, Ye.L., redaktor; FILIPPOVA, G.V., redaktor;  
BALELOV, I.I., redaktor.

[Peculiarities of working large coal seams in the Chelyabinsk Basin]  
Osobennosti razrabotki moshchnykh ugol'nykh plastov v Cheliabinskoy  
basseine. Moskva, Ugletekhizdat, 1953. 162 p. (MIRA 7:6)  
(Chelyabinsk Basin--Coal mines and mining) (Coal mines and  
mining--Chelyabinsk Basin)

1. R. V. BUTKEVICH
2. USSR (600)
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AVERSHIN, S.G.—(continued) Card 2.

red.; ARKHANGEL'SKIY, A.S., kand.tekhn.nauk, red.; REZNIKOV, G.A.,  
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PHASE I BOOK EXPLOITATION SOV/5643

Khrushchov, N. A., and T. V. Butkevich

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Sponsoring Agency: Ministerstvo geologii i okhrany neдр SSSR. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya.

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Card 1/4

Industrial Requirements Concerning the (Cont.) SOV/5643

PURPOSE : This booklet is intended for geochemists.

COVERAGE: The authors describe the characteristics, properties, and uses of molybdenum and rhenium ores. Types of deposits, industrial quality requirements, and testing and processing methods are also discussed. The present volume, the 27th in a series of 50, constituting a handbook on geology, is the second, revised edition. The first edition was published in 1950. No personalities are mentioned. There are 69 references: 52 Soviet, 15 English, 1 French, and 1 German.

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| Molybdenum Minerals   | 6 |
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