"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, I. E.

High-transparency glass from continuous tanks. K. T. BONDAREV, V. A. DUBROVSKII, V. V. POLLYAK, AND I. E. SHAPIRO. *Steklo i Keram.*, 10 [12] 4–11 (1953).—In a continuous tank of ordinary construction fired with clean producer gas, glass having a transparency of over 90% was obtained. FeO content was within the limits of 0 to 10% of the total Fe compounds in the glass. High transparency was made possible by the use of oxidizers; the optimum oxidizer was a mixture of equal amounts (0.05 to 0.075%) of As_2O_3 and Sb_2O_3. Fe_2O_3 in the glassmelt was 0.06%. Cf. *Ceram. Abstr.*, 1953, Nov., p. 189*f*. B.Z.K.

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SHAPIRO, I.E.

USSR/ Engineering - Glass tube manufacture

Card 1/1 Pub. 104 - 6/11

Authors : Shapiro, I. E.; Tykachinskiy, I. D.; and Buneyeva, L. I.

Title : The manufacture of heat resistance glass pipes from alkaline-free glass by the horizontal drawing method

Periodical : Stek.i ker. 2, 18 - 21, Feb 1955

Abstract : The process of manufacturing heat resistant glass pipes from alkaline-free five-component glass (containing SiO_2, Al_2O_3, CaO, MgO and F_2) by the horizontal drawing method is described. The physico-chemical composition of such a type of glass are described and the various applications of glass pipes are listed. Tables; diagrams; drawings; graph.

Institution: .....

Submitted: .....

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

Shapiro, I. E.

V New resistant glass tubing. I. E. Shapiro (*Glass & Ceramics, Moscow*, 1955, 12, No. 3, 18—21; *Glass*, 1955, 32, 440, 442—443).—MT A glass free from B_2O_3 (owing to scarcity) and alkali contains SiO_2, Al_2O_3, CaO, MgO and Fe_2O_3. It has α of 5×10^{-6} and a softening temp. of 680°, and is resistant to thermal shock. Tubes up to 70 mm. diameter have been made for the cladding of overland pipe-lines. Some details of the melting tank furnace (2—2·5 tons capacity) and tube-drawing machine are given. J. A. SUGDEN.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, I. Ye.

USSR.

9966* Manufacture of Glass Pipe by the Method of Vertical Drawing. **Proizvodstvo stekliannykh trub sposobom vertikal'nogo bezlodochnogo vytiagivaniia.** (Russian.) I. E. Shapiro, G. V. Pototskaia, I. M. Bruk, D. V. Zaliznlak, and E. P. Mel'nik. *Steklo i Keramika*, v. 12, no. 4, Apr. 1955, p. 4-8.

Equipment and methods. Diagrams, graph.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

USSR/Chemical Technology - Chemical Products and Their Application. Ceramics. Glass. Binders. Concrete. H-7

Abs Jour : Referat Zhur - Khimiya, No 1, 1958, 2044

Author : Frolova Ye.G., Pototskaya G.V., Shapiro I.Ye., Afanas'yev A.N.

Inst : -

Title : Welding of Glass Pipes and Shaped Pipe Fittings.

Orig Pub : Steklo i keramika, 1957, No 5, 24-27

Abstract : For the welding of glass pipe fittings use was made at first of the horizontal-welding machine of A320-Al type, which is used at plants of the radio industry for welding of glass apparatus. The machine can be used to weld glass pipe of up to 80 mm outside diameter and of any length, and pipe of larger diameter in lengths up to 1000 mm. At the experimental glass plant a disk-machine was designed which makes it possible to weld pipe of any diameter in lengths up to 4-5 m, and to weld

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

AUTHOR: Shapiro, I.Ye. 72-58-6-3/19

TITLE: On the Annealing of Glass Tubes (Ob otzhige steklyannykh trub)

PERIODICAL: Steklo i Keramika, 1958, [illegible] Nr 6, pp. 6-7 (USSR)

ABSTRACT: At the Gomel' plant the apparatus OP-36 is used for the annealing of glass tubes. However, it has a number of constructional faults, and besides it is not suited for the annealing of glass products with a softening temperature of 725°. As, however, the production of thick-walled glass tubes will be of considerable interest in the course of the next few years, the problem of annealing is of great importance. In this connection the article by N.A.Zakharikov, L.S.Fioro, B.K.Demidovich and D.V.Zaliznyak on the annealing of glass tubes is of interest. It describes the construction of a 4-chamber furnace developed by the Institute for the Utilization of Gas AS Ukrainian SSR, and gives data concerning its operation. This furnace differs from others by the fact that the tubes are annealed in a vertical position, the combustion gases flowing through the tubes from the top in a downward direction, flowing round the inside and the outside of the tubes simultaneously. This is intended to accelerate the process of annealing and to

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warrant a more favorable distribution of the residual stresses in the walls of the tubes. After mentioning that the efficiency of the OP-36 surpasses that of the 4-chamber furnace by 1.5 times its amount, the author enumerates the following further drawbacks of the 4-chamber furnace:

1.) For tubes of 3 m length it is necessary that the height of the furnace is 4 m, which renders uniform heating and cooling of the tubes in a longitudinal direction difficult.
2.) There must be a considerable underpressure in the furnace in order to make it possible for the required quantity of gas to pass through. For this purpose, the furnace must, however, be hermetically sealed, which is difficult because of the size of its doors.
3.) The construction of the 4-chamber furnace provides for charging by hand, whereas in the case of the OP-36 this process can easily be mechanized.

Thus, as may be seen from the above, the 4-chamber furnace offers no advantages whatever compared to OP-36 (with the exception of its compactness), whereas the latter warrants high quality annealing of all types of tubes. The method of bilateral heating and cooling of the tubes during the process of annealing can be

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employed in the case of a continuously operating annealing furnace, but only on the condition that the annealed glass tubes are in a horizontal position. Such an aggregate can be produced only by construction engineers.

ASSOCIATION: Institut stekla (Glass Institute)

1. Glass tubing--Heat treatment 2. Glass tubing--Thermal stresses 3. Glass--Temperature factors 4. Furnaces--Design 5. Furnaces --Performance

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

14(9)

AUTHORS: Shapiro, I. Ye., Ivyanskiy, A. Z. SOV/72-59-8-3/17

TITLE: Glass - Concrete Heating Panels (Steklobetonnyye otopitel'nyye paneli)

PERIODICAL: Stekio i keramika, 1959, Nr 8, pp 4-8 (USSR)

ABSTRACT: The Gosudarstvennyy nauchno-issledovatel'skiy institut stekla (State Scientific Research Institute for Glass) and Nauchno-issledovatel'skiy institut sanitarnoy tekhniki Akademii stroitel'stva i arkhitektury SSSR (Scientific Research Institute of Sanitation Technology of the Building and Construction Academy, USSR) have developed a glass-concrete heating panel which is now being tested in operation. It is shown in figure 1. The prototype of the apparatus was a similar construction by Engineer Yakhimovich, in which, however, steel tubes were used instead of glass tubes. Investigation of the galss-concrete panels started in 1955, the main task being that of rendering possible the cooperation of glass and concrete, having different coefficients of thermal expansion. The tube coils (inside diameter 12-13 mm, wall thickness 3.0-3.5 mm) were made of weakly alkaline glass Nr 13 v and welded by means of rods of

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the same glass and then annealed. The welded glass tubes were examined with respect to possible tensions resulting from the welding process by means of polariscope PKS-500. The panels were made of concrete M-200 with a coarse grain of up to 20 mm and then kept in a steam chamber for 18-20 hours. The finished panels were then tested hydraulically for five minutes at a pressure of 8 atm. In the years 1956-57 nine glass-concrete panels were examined in the test plant (Fig 2) at the Institute Sanitation Technology. The best combination design proved to be the one shown in figure 3. The panels were tested in operation in a four-storied Moscow apartment house. A room with two panels is shown in figure 4. The panels proved their practical value during two heating periods (1957/58 and 1958/59). Figure 5 shows the axial tension in the glass coils as a function of the temperature of concrete binding. Figures 6-9 show the results of successful laboratory investigations of glass-concrete panels P-1A and P-1V with respect to their unilateral and bilateral heat emission. Preliminary calculations showed that in the case of mass production the panels under consideration will be 10 to 15% cheaper than cast-iron radiators.

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Glass-concrete Heating Panels SOV/72-59-8-3/17

By replacing 10% only of the cast-iron radiators produced annually by glass radiators 60,000 t of metal will be saved (estimated on the basis of the 1960 program). It has been decided to start industrial production of the glass coils at the Buchanskiy glass works of the Kiyev Council of National Economy. There are 9 figures.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, I.Ye.; FROLOVA, Ye.G.; SOLINOV, F.G., nauchnyy red.; STAROSVETOVA, V.G., red.izd-va; RUDAKOVA, N.I., tekhn.red.

[Glass pipes; production and use] Stekliannye truby; proizvodstvo i primenenie. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1960. 158 p. (MIRA 13:4)
(Pipe, Glass)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, I.Ye.; FROLOVA, Ye.G.

Use of glass pipes in the chemical industry. Khim. prom. no. 7:602-603 O-N '60. (MIRA 13:12)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut stekla.
(Pipe, Glass) (Chemical apparatus)

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84913

S/068/60/000/011/001/001
E071/E435

15.2120 2109, 1409, 1428 only

AUTHORS: Shapiro, I.Ye., Candidate of Technical Sciences and Frolova, Ye.G., Candidate of Technical Sciences

TITLE: Experience in the Application of Glass Pipes in the Coking Industry

PERIODICAL: Koks i khimiya, 1960, No.11, pp.57-60

TEXT: The importance for the national economy of using more extensively glass pipes for carrying corrosive products is stressed. At present, over 600000 m of glass pipelines of a diameter varying from 38 to 100 mm is used in 850 enterprises of the USSR. The composition of glass used for the production of pipes is as follows: SiO_2 63.5%, Al_2O_3 15.5%, CaO 13%, MgO 4%, Na_2O 2%, F 2%. Characteristic properties of tubes: coefficient of linear expansion 50×10^{-7}; softening temperature 725°C; heat conductivity coefficient (from 70 to 350°C) 0.77 k cal/m.°C.hr; heat capacity (at 25 to 560°C) 0.172 to 0.208 k cal/kg °C; resistance to thermal shock (from a hot medium into a cold one at a wall thickness of 4.5 to 5 mm) 90°C; internal hydraulic breaking pressure (for tubes 50 mm in diameter, wall thickness 5 mm) 45 to 60 atm; operating pressure 7 atm; elasticity modulus in tension

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Experience in the Application of Glass Pipes in the Coking Industry

7500 kg/mm^2; bending strength 600 to 1000 kg/cm^2, crushing strength 300 to 400 kg/cm^2, tensile strength 200 to 250 kg/cm^2. Tubes from 40 to 100 mm in diameter are produced by the Gomel' Glass Works of the White Russian Sovnarkhoz and tubes from 12 to 40 mm in diameter by the Buchansk Glass Works of the Kiyev Sovnarkhoz. In addition to straight glass pipes, curved pipes and fittings are produced. The design and erection of glass pipelines is carried out by the Moscow Special Administration of the Ministry of Building of the RSFSR. Various methods of joining glass pipes are shown in Figs.2 to 5. The use of glass pipes in the coking industry started in 1958. Some examples of a successful application are quoted: 1) Makeyevska Coking Works for transportation of acid solution (not specified) at 75 to 78°C and 1.5 atm, stainless tubes (service life of which did not exceed 1 to 1.5 years) were replaced by glass pipes. 2) In the same works in the dephenolizing plant glass pipes are operating at 55°C and 3 atm. 3) Rutchenkovo Works - for ammonia solution. It is pointed out that in addition to their corrosion resistance, glass pipes are

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E071/E435

Experience in the Application of Glass Pipes in the Coking Industry

cheaper than metal ones (a comparison of prices is given in the text). There are 5 figures.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy institut stekla (State Scientific Research Institute of Glass)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

S/081/62/000/023/070/120
B144/B186

AUTHORS: Frolova, Ye. G., Shapiro, I. Ye., Kulyamina, L. L.

TITLE: Glass coatings on steel tubes

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1962, 499 - 500, abstract 23K478 (Steklo. Byul. Gos. n.-i. in-ta stekla, no. 3(112), 1961, 36 - 44)

TEXT: A method has been developed by the laboratoriya proiz-va [illegible] steklyannykh trub In-ta stekla (Laboratory for Glass Tube Production of the Glass Institute) together with the Ukrainskiy nauchno-issledovatel'skiy trubnyy in-t (Ukrainian Scientific Research Institute for Tubes) for preparing the surfaces of steel tubes for the application of glass coatings. A procedure has been elaborated for coating the inner surface of small-bore steel tubes (up to 50 mm diameter) with glass. For industrial production of glass-lined steel tubes by the "balloon" method, glass compositions are recommended, the best of which is glass no. 1, consisting of (in %): SiO_2 69, Al_2O_3 1.4, B_2O_3 1, PbO 2, CaO 6.5, MgO 1.3, BaO 1.3, Na_2O 15, K_2O 2.5. This glass contains the scarce and expensive PbO, and

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can be replaced by glasses no. 13 (SiO_2 68.3, ZrO_2 2, R_2O_3 3.3, CaO 7.3, MgO 2.3, Na_2O 11.8, K_2O 5) and no. 16 (SiO_2 69.1, B_2O_3 2, CaO 5.5, MgO 3.5, BaO 2, Na_2O 11, K_2O 6.5). [Abstracter's note: Complete translation.]

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SH[illegible], I.Ya., kand.tekhn.nauk

Glass pipes for chemical and petrochemical plants. Khim. i neft. mashinostr. no.8:32-33 ag '65.

(MIRA 18:9)

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24984
S/190/62/004/003/004/023
B110/B144

15.8061

AUTHORS: Minsker, K. S., Shapiro, I. Z., Razuvayev, G. A.

TITLE: Modification of polypropylene

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 3, 1962, 351-356

TEXT: The modification of polypropylene (I) was investigated by introducing functional groups into the macromolecule. The destruction of the hydroperoxides, first formed owing to the rather easy oxidation of I, was possible (1) by graft copolymerization of I with vinyl monomers polymerizing through the radical mechanism, and (2) by characteristic hydroperoxide reactions. Thereby, the number of $-\overset{|}{\underset{|}{C}}-H$ bonds of the unsymmetric C atom, oxidation, and aging are reduced, and ordinary dyes can be fixed at the surface of newly formed polar groups. I can be graft-copolymerized with methyl methacrylate (II), with methacryl amide, methacrylic acid, and acrylonitrile. In the last three compounds, however, the copolymers are poorly separable from the homopolymers. The graft polymer of I and II can be dyed well with azo dyes, the fiber color

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being characterized by brilliance and resistance to boiling soapsuds. The mechanical strength (σ) was found to increase, but the relative elongation (ε) in the case of rupture decreased considerably due to elasticity loss. Oxidation of I only affected σ and ε if it was protracted (> 6 hrs) or combined with UV irradiation (σ = 60 kg/mm^2, ε = 425 %; σ = 79 kg/mm^2, ε = 350 %). Only surface oxidation took place without secondary aging. The macromolecular hydroperoxide groups were identified by iodine separation. Oxidized I was treated for 6 hrs with KI acetate solution at 20°C, and the following reaction took place:

$$\sim \underset{\underset{OOH}{|}}{\overset{\overset{CH_3}{|}}{C}} \sim \xrightarrow{HI} \sim \underset{\underset{OH}{|}}{\overset{\overset{CH_3}{|}}{C}} \sim + H_2O + I_2.$$

The OH groups thus formed were identified by IR spectroscopy. Here also, coloring with azo dyes was successful, and σ and ε increased. I fibers were made suitable for dyeing by being treated with solutions of triethyl aluminum in n-heptane and with 0.1 N HCl. The initial strength was preserved, and even partly increased. The frequency 333 cm^{-1}, identifying

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S/190/62/004/012/009/015
B101/B186

AUTHORS: Razuvayev, G. A., Minsker, K. S., Shapiro, I. Z.

TITLE: Copolymerization of styrene and propylene in the presence of the heterogeneous Ziegler-Natta catalytic system

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 12, 1962, 1833-1838

TEXT: Styrene and propylene in the initial ratio 65:35 were polymerized in the autoclave at 60°C in the presence of $TiCl_3 + Al(C_2H_5)_3$. The above-mentioned ratio was chosen in order to obtain a polymer the softening point of which is only slightly below that of isotactic polystyrene. Results: (1) The polymerization of propylene is anomalously accelerated in the presence of styrene. The initial product contains almost no styrene. Only after prolonged heating (10-15 hrs) is a copolymer obtained, which differs from the initial product and also from a mechanical mixture of the homopolymers. The thermomechanical curve for the mixture shows transition points at 160° and at 200-210°C, whereas the copolymer has a softening point only at 195-205°C. The same product is

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obtained by addition of propylene in portions. This suggests that a block copolymer is formed. (2) If an aromatic hydrocarbon (benzene, xylene) is used as solvent instead of a saturated hydrocarbon (benzine, n-heptane), polymerization is accelerated. (3) The rate of polymerization also depends on the method of producing $TiCl_3$. The latter was obtained by reduction of $TiCl_4$ with H_2, Al, Sb, or Si. The use of $TiCl_3$ obtained by reduction with H_2 or Si yielded a copolymer with s.p. 150-155°C and relative breaking elongation of 200-680%, whereas the catalyst reduced with Al or Sb yielded a copolymer with s.p. 195-208°C and relative breaking elongation 30-70%. This is explained by the difference in quality of the catalyst surface. (4) The softening point of the copolymer depends on the styrene content. In copolymers with a styrene-propylene ratio >10:1, an amorphous product is formed, the s.p. of which lies below that of polypropylene. (5) Composition and physico-mechanical properties of the copolymer can thus be regulated by the method of adding propylene, the reaction time, and the type of $TiCl_3$ used. There are 5 figures and 3 tables. The most important English-language reference is: N.G.Gaylord, H.F.Mark, Linear and Stereoregular Addition Polymers, Intersci. Publ. Inc., N.Y., 1959.

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Copolymerization of styrene and...

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SUBMITTED: July 7, 1961

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

Shapiro, L. M. - "Chronaximetry of an exposed nerve during its firearm trauma," In symposium: VIII Sessiya Neyrokhirurg. soveta i leningr. in-ta neyrokhirurgii, (Akad. med. nauk SSSR), Moscow, 1948, p. 220-24

SO: U-3600, 10 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 6, 1949).

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S[illegible], [illegible]

"Electron Stimulator (Rhythmical Electron Chronaximeter," Fiziol. Zhur. SSSR, 34, No. 4, 194[illegible]. [illegible]., Leningrad Neurosurgical Inst., -c1946-.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, K. M.

Functional ability of the visual analysor in penetrating wounds of the brain. Trudy LSGMI 64:281-288 '61.
(MIRA 15:7)

1. Fiziologicheskiy otdel Leningradskogo neyrokhirurgicheskogo instituta imeni A. L. Polenova i Fiziologicheskaya laboratoriya Gosudarstvennogo nauchno-issledovatel'skogo detskogo ortopedicheskogo instituta imeni Turnera. Zav. otdelom - deystvitel'nyy chlen AMN SSSR prof. A. V. Lebedinskiy. Zav. laboratoriyey - prof. Yu. M. Uflyand.

(VISION) (BRAIN--WOUNDS AND INJURIES)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, Kh.M.; GERMAN, R.P.

Increasing the re-use of barrels in the food and chemical industries. Trudy NIL Tary no.4:98-105 '60. (MIRA 14:12)
(Barrels)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, Kh. Sh.

191T69

USSR/Hydrology - River

Oct 51

"Increasing the Head Water Intake by Conducting Regulating Operations in River Beds," Kh. Sh. Shapiro, Cand Tech Sci, V. A. Turks, Engr

"Gidrotekh i Meliorat" Vol III, No 10, pp 47-53

Describes expts in river regulation, by proper directing of streams, for the purpose of increasing water intake in the Tash-Sakinskiy canal to secure irrigation during periods of drought.

191T69

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, KH. SH.

USSR/Engineering - Irrigation, Structures Aug 51

"Experiment on Using Metal-Type Stream-Directing Systems Designed by Prof M. V. Potapov," Kh. Sh. Shapiro, Cand Tech Sci

"Gidrotekh Stroi" No 8, pp 37,38

Describes metal construction of stream-directing system built for Amu-Dar'ya irrigation canal. System 153 m long consists of 17 sections. During 1950 irrigation period 431,000 cu m of drifting material were diverted from the canal.

200T83

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

18.3100

75392
SOV/149-2-5-18/32

AUTHORS: Shapiro, K. Ya., Meerson, G. A.

TITLE: Study of Acid Processing of Wolframite Concentrates

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Tsvetnaya metallurgiya, 1959, Vol 2, Nr 5, pp 124-132 (USSR)

ABSTRACT: Acid processing of wolframite is a difficult operation due to a high chemical stability of the ore and to a complicated elimination of iron and manganese from the final product. Moreover, the process is complicated and delayed by a protective film of tungstic acid which is formed on the unprocessed wolframite. However, the acid process is advantageous if carried out in a heated ball mill which knocks off the protective film. Tests were made to develop a suitable industrial method. A coarse concentrate containing 73.4% WO_3 was processed in hydrochloric acid in a porcelain laboratory ball mill at 100°. The results, depending on the concentration and quantity of acid, and on time, are shown in Figs. 1,2. The product of

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the reaction was separated from the balls, washed, and after decanting of iron and manganese chlorides, the tungstic acid was dissolved in ammonia, evaporated or neutralized to pH = 7.3. The operation was completed in 8 hrs using a 70% excess of HCl. A 110% excess permits a 6-hr operation. Besides tests with coarse wolframite, fine crushed ore concentrate was processed in reactors with stirrers but without balls. However, the results of processing in ball mills proved to be much superior: better yields in shorter processing time. Processing at temperatures higher than 100° in hermetic mills is recommended: at 150° the operation is completed in 4 hrs. Cast basalt plate lining and basalt balls are recommended for use in ball mills for high temperature and acid resistance. Polyogranosiloxane rubber is also mentioned as an acid-resistant and mechanically strong material. It is further suggested to carry out the process in two stages. 93% of the ore undergoes the reaction during the first 2 to 3 hours, leaving a small residue, which can be accumulated and processed later at a considerable time

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Study of Acid Processing of Wolframite Concentrates

75392
SOV/149-2-5-18/32

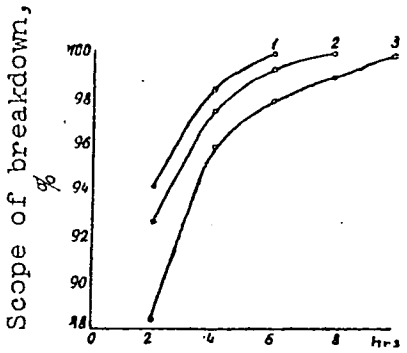

Fig. 1. Consumption of HCl vs speed and scope of wolframite breakdown (HCl concentration 34%). HCl consumption and ratio solid to liquid: (1) 210% and 1:1.6; (2) 170% and 1:1.3; (3) 130% and 1:1.

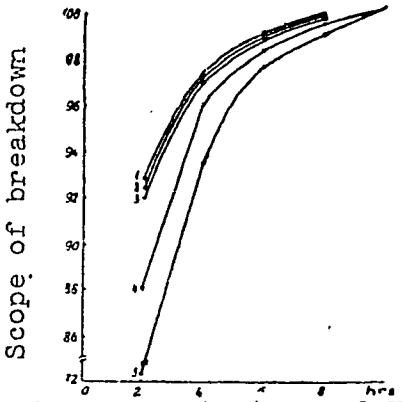

Fig. 2. Concentration of HCl vs speed and scope of wolframite breakdown (HCl consumption 170%). HCl concentration and ratio solid to liquid: (1) 34% and 1:1.3; (2) 30% and 1:1.46; (3) 26% and 1:1.7; (4) 22% and 1:2; (5) 18% and 1:2.46.

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Study of Acid Processing of Wolframite Concentrates

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SOV/149-2-5-18/32

saving. These residues are no tailings; they contain about 10 to 12% WO_3, even if it is only 0.5% of the total WO_3. A two-stage processing permits a total 99.5% extraction of WO_3. Usually the residues of 4 to 5 batches can be consolidated into one second-stage processing. Impurities and admixtures in the final product are eliminated by the following methods. A repeated washing of tungstic acid may still leave traces of iron and manganese which are entrained into the ammonia solution. It was found that the concentration of HCl during the initial process is of great importance for the final purity of the product, 26% concentration being the optimal. Even then the formation of sesquioxides of iron and manganese is possible, and they go into the solution together with ammonium tungstate. They can be eliminated by adding ammonium sulfide combined with a subsequent addition of lead nitrate which binds the excess sulfur in the insoluble lead sulfide. Excess lead is precipitated as lead tungstate. There are 6 tables; and 6 Soviet references.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

Study of Acid Processing of Wolframite Concentrates

75392
SOV/149-2-5-18/32

ASSOCIATION: Krasnoyarsk Institute of Nonferrous Metallurgy, Chair of Rare Metal Metallurgy (Krasnoyarskiy institut tsvetnykh metallov. Kafedra metallurgii redkikh metallov)

SUBMITTED: March 9, 1959

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

MEYERSON, G.A.; SHAPIRO, K.Ya.

Studying conditions of equilibrium of reactions between synthetic ferberite and hydrochloric acid. Izv.vys.ucheb. zav.; tsvet.met. 2 no.6:142-146 '59. (MIRA 13:4)

1. Krasnoyarskiy institut tsvetnykh metallov. Kafedra metallurgii redkikh metallov.
(Ferberite) (Hydrochloric acid)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

TITLE: Conference on autoclave processes

PERIODICAL: Tsvetnyye metally, 1959, Nr 7, pp 84-87 (USSR)

ABSTRACT: On 23-26 February 1959 a conference was held in Moscow for summing-up and coordinating work on autoclave processes in the metallurgy of heavy, non-ferrous, rare and noble ... The conference heard reports as follows: D.M. Yukhtanov, Gintsvetmet, on progress throughout the world on the use of hydrometallurgical, particularly autoclave, methods for non-ferrous and rare metal production; G. N. Dobrokhotov, Gipronikel', on nickel leaching practice at some Soviet works; N. I. Chuchkina and G. N. Dobrokhotov on the thermodynamics and kinetics of the selective reduction by hydrogen and carbon monoxide under pressure of nickel and cobalt from solution; I. Yu. Leshch and K. M. Shelepova, Gipronikel', on design decisions on the application of the flowsheets dealt with by G. N. Dobrokhotov at the Yuzhuralnikel' and Severonikel Combines and the Ufaleyskiy (Ufa) Nickel Works; I. N. Maslenitskiy, Leningradskiy gornyy institut (Leningrad Mining Institute) on the advantages of a combined flotation-autoclave method for nickel-electrolysis of slimes containing platinum-group metals; V. B. Zhilkin, Severonikel' combine, and S. I. Sobol', Gintsvetmet, on the essentials of the neutral method of oxidizing leaching of nickel concentrate from converter-matte flotation; S. I. Sobol' on preliminary investigations on the development of a sulphurous-sulphuric method for leaching nickel and cobalt from oxidized nickel ores; N. N. Maslenitskiy, Mekhanobr, on the main results of investigations of the autoclave-soda process for treating tungsten-ore beneficiation products: V. I. Popmukaylo, Mekhanobr, and D. A. Malakhov, Skopinskaya (Skopinsk) TsOF, separately, on problems in the application of an autoclave-soda flowsheet to scheelite and wolframite raw material; G. A. Meyerson, K. Ya. Shapiro, N. N. Khavskiy, R. A. Pavlyuk and A. P. Nedol'skiy, Krasnoyarskiy institut tsvetnykh metallov (Krasnoyarsk Non-Ferrous Metals Institute) on the treatment of tungsten concentrates in hermetical, heated ball-mills with acids or caustic alkalies; V. I. Spiridonova, S. I. Sobol', Ye. I. Gulyayeva, Z. L. Berlin, I. M. Nolen' and B. I. Rudenko, Gintsvetmet, on the treatment of prepared and unprepared sulphide molybdenum raw material by oxidizing autoclave alkaline leaching; I. M. Nolen' and S. I. Sobol' on the kinetics of oxidizing autoclave leaching; A. N. Zelikman and Z. M. Lyapina, Krasnoyarsk Non-Ferrous Metals Institute, on the results of a study of conditions for the selective separation of lower oxides of tungsten and molybdenum from their salt solutions by hydrogen under pressure; M. Y. Darbinyan, Gorno-metallurgicheskiy institut (Mining-Metallurgical Institute) of the Sovnarkhoz (economic council) of the Armyanskaya SSR (Armenian SSR), on his investigations of ammoniacal autoclave leaching under oxygen pressure of molybdenum concentrates; S. I. Sobol' on technical-economic factors of ammoniacal leaching; A. I. Sinel'nikova and I. N. Plaksin, Krasnoyarsk Non-Ferrous Metals Institute, on an oxidizing autoclave process for gold-containing raw material; N. G. Tyurin, Ural'skiy politekhnicheskiy institut (Ural Polytechnic Institute) on the behaviour of noble metals in oxidizing autoclave leaching in thiosulphate solutions; A. L. Tsaft and D. A. Tarasov and A. Yu. Dadabayev, Institut metallurgii i obogashcheniya AN Kaz SSR (Metallurgy and Beneficiation Institute of the AS Kaz SSR), respectively, on the physicochemical fundamentals and on works'trials of autoclave salt leaching of polymetallic materials; I. Yu. Leshch, Gipronikel', on the unsuitability of autoclave leaching for lime-containing materials; V. A. Bernshteyn, VAMI, on industrial experience of a continuous autoclave leaching process for bauxites; V. G. Tronev, IONKh AN SSSR (IONKh AS USSR), on compounds of some rare elements in various valency states under oxygen and hydrogen pressure in the presence of anhydrous ammonia; Z. L. Berlin, Gintsvetmet, on autoclave design and operation; P. G. Yakovlev, Gipronikel', and N. Ye. Vishnevskiy, VNII neftekhim, on model studies on autoclaves and the development of mixers; M. A. Polyanov, K. B. Giredmet, on the design of an experimental high-pressure pulp pump. G. L. Shvarts, NIIKhIMASh, on the selection of steel for acid leaching of cobalt matte and matte-flotation concentrate; Yu. I. Archakov, VNIIneftekhim, on corrosion of types 1Kh18N9T, 12Kh2M, 10KhSND and 10GND steels in soda and alkaline solutions in the presence of metal salts and oxygen at 5 - 15 kg/mm²; V. I. Deryabina and N. N. Kalgatin, VNIIneftekhim, separately, on mechanical properties of hydrogen-affected steels. The conference made recommendations aimed at the extension and improve-

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, K. Ya., Cand Tech Sci (diss) -- "Investigation of the acid method of treating wolframite concentrates". Moscow, 1960. 14 pp (Min Higher and Inter Spec Educ RSFSR, Inst of Nonferrous Metals im M. I. Kalinin, Chair of Metallurgy of Rare Metals), 150 copies (KL, No 11, 1960, 135)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

S/136/60/000/02/013/022
E111/E435

5.2200

AUTHORS: Meyerson, G.A., Shapiro, K.Ya., and Khomyakov, P.P.

TITLE: New Method for Producing Chemically Pure Tungstic Acid

PERIODICAL: Tsvetnyye metally, 1960, No. 2, pp. 58-63 (USSR)

ABSTRACT: The authors have developed, under laboratory conditions, a new improved method of preparing pure tungstic acid, used in electrical engineering, on the basis of a proposal by K.Ya. Shapiro and A.I. Gedrayts (Author's Certificate No. 100840, 1958) for using the double salt ammonium sodium paratungstate corresponding approximately to $3(NH_4)_2O \cdot Na_2O \cdot 10WO_3 \cdot 15H_2O$. This is precipitated, instead of calcium tungstate, from technical sodium tungstate solution with the aid of ammonium chloride and its use simplifies subsequent operations. The present investigation was on the influence of pH, concentration of initial sodium tungstate solution and excess of ammonium chloride on the crystallization and yield of the double salt. The behaviour of sodium and molybdenum as impurities at various stages in the process are also studied. Chemically pure sodium tungstate was used, the pH of the solution before addition of anhydrous ammonium

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E111/E435

New Method for Producing Chemically Pure Tungstic Acid

chloride being adjusted by adding hydrochloric acid. pH values were determined with the aid of an LP-5 potentiometer. After crystallization, the double salt was separated and washed and its WO_3 content determined. The double salt was decomposed with hydrochloric acid to give chemically pure tungstic acid. Table 1 shows WO_3 yield, %, for pH values (of the Na_2WO_4 solution) of 6.0, 7.0, 7.3 and 8.0 and different values of NH_4Cl excess (% of that required to form $(NH_4)_2WO_4$) and molar ratio of $NH_4^+ : Na^+$ in the solution. The yield rises with increasing excess of NH_4Cl and is a maximum (90%) at 120% and pH = 6.8 to 7.2. The influence of time and NH_4Cl consumption on the yield is shown diagrammatically indicating that the rate of increase of yield falls off sharply after the first 48 hours. Table 2 gives the yield for various crystallization times and Na_2WO_4 solution concentrations of 100, 170, 240 and 280 g WO_3/litre; maximum yields are obtained at concentrations of 170 to 240 g/litre. On the whole it is not advisable to aim for yields of over 90% since

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E111/E435

New Method for Producing Chemically Pure Tungstic Acid

contamination of the double salt then occurs. Chemical analysis of the double salt obtained under optimum conditions showed its composition to be $3(NH_4)_2O \cdot Na_2O \cdot 10WO_3 \cdot 15H_2O$. Table 3 shows the $Mo:WO_3$ ratio and the degree of purification from molybdenum during the crystallization of the double salt and its decomposition by hydrochloric acid showing that, by treating by the proposed method molybdenum concentrates with 0.10 to 0.13% Mo relative to WO_3, a product with $Mo:WO_3 < 0.02\%$ (ie satisfying the GOST) can be produced. The chemical compositions of two samples are compared in Table 4 with the specifications of GOST 2197-43 showing that all impurities are well below the specification. The new technology eliminates many of the operations applied in the current method, which uses calcium tungstate as an intermediate product, and brings about an almost complete separation of impurities. The authors recommend the semi-production testing of their method and its industrial adoption.

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66L95

S/136/60/000/02/013/022
E111/E435

New Method for Producing Chemically Pure Tungstic Acid

There are 1 figure, 4 tables and 5 references, 3 of which are Soviet, 1 English and 1 French.

ASSOCIATION: Institut tsvetnykh metallov im. M.I.Kalinina (Institute of Non-Ferrous Metals imeni M.I.Kalinin)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

26797
S/136/61/000/007/001/002
E021/E480

5 2200 1037

AUTHOR: Shapiro, K. Ya.

TITLE: Method of producing ammonium molybdate from solutions of high sodium sulphate concentration

PERIODICAL: Tsvetnyye metally, 1961, No.7, pp.57-60

TEXT: The present methods of precipitation of molybdenum from solutions of sodium molybdate are time-consuming and expensive. The possibility of precipitating ammonium molybdate direct from sodium molybdate solution was therefore investigated. The method was to acidify the sodium molybdate solution with hydrochloric acid to a definite pH value and to add dry ammonium chloride when a precipitate of ammonium isopolymolybdate was obtained. The method depended on the difference in solubility of sodium and ammonium isopolycompounds of molybdenum. Fig.1 shows the percentage of molybdenum extracted against the pH value, using a solution containing 60 g/l Mo and adding ammonium chloride in sufficient quantity to take all Mo in the form of $(NH_4)_2MoO_4$. 99.6 to 99.8% extraction efficiency can be obtained with a pH of 3.0 to 3.5. Fig.2 shows the percentage of Mo extracted in

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E021/E480

Method of producing ammonium ...

24 hours against the concentration of Mo in solution at a pH = 3.0, with 100% NH_4Cl added. The amount extracted increases with increasing Mo concentration. With 60 g/l Mo in the initial solution, extraction efficiency is 99.8%. Fig.3 shows the percentage of Mo extracted in 24 hours against the ammonium chloride added at a pH = 3.0. Extraction is complete with 40 to 60% of the quantity of ammonium chloride necessary for converting Mo into $(NH_4)_2MoO_4$. This is explained by the formation of ammonium tetramolybdate. The process is accelerated by continuous stirring and by additions of ammonium tetramolybdate to act as a nuclei. Table 1 shows the effect of the percentage of ammonium chloride added to form $(NH_4)_2MoO_4$ and of time on the amount extracted at 60 g/l Mo concentration and pH = 3.0. Table 2 shows the influence of sodium sulphate on the degree of extraction. Final purification can be carried out by treating the ammonium tetramolybdate with a solution of ammonium chloride, when the content of sodium chloride in the precipitate decreases from 0.5 to 0.01%. There are 3 figures, 2 tables and 5 Soviet references.

ASSOCIATION: VNIITS

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

S/080/62/035/003/003/024
D258/D302

AUTHOR: Shapiro, K. Ya.

TITLE: Conversion of sodium molybdate solutions into ammonium molybdate

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 3, 1962, 486-491

TEXT: The author aimed at establishing optimum conditions for the direct conversion of sodium molybdate solution into ammonium molybdate, suitable for the manufacture of metallic Mo. The process consisted of precipitating ammonium molybdate in 99.5% yield by the action of acidified NH_4Cl. The raw product contained 0.2 - 0.4% Na per Mo. The author investigated the influence of Mo concentration, NH_4Cl requirements, pH, and length of precipitation periods on yield and purity. Optimum results were obtained with Mo concentrations of 60 - 100 g/l, equivalent quantities of NH_4Cl, pH of 1.8 - 2.2 and by precipitating with continuous stirring during 4 to 6

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D258/D302

Conversion of sodium ...

hours. The crystalline precipitate was essentially free from heavy metals and the final recrystallization yielded a product suitable for use in the electrotechnical and other industries. There are 2 figures, 3 tables and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: H. Cox and A. K. Schellinger, Eng. A. Mining J., 10, 159, (1958).

ASSOCIATION: Institut tverdykh splavov (Institut of Solid Alloys)

SUBMITTED: November 23, 1960

Card 2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

S/137/62/000/005/028/150
A006/A101

AUTHORS: Meyerson, G. A., Khavskiy, N. N., Shapiro, K. Ya., Nadol'skiy, A. P.

TITLE: Investigations of processing tungsten concentrates

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1962, 16 - 17, abstract 5G101 ("Sb. nauchn. tr. In-t tsvetn. met. im. M. I. Kalinina", 1960, v. 33, 161 - 174)

TEXT: The authors studied thermodynamical, equilibrium and kinetic fundamentals of acid processing of tungsten concentrates. The high values of equilibrium constants in the interaction reactions of scheelite (about 10,000) and tungstenite (about 700) with HCl prove the thermodynamical possibility of the practically full decomposition of these concentrates at a slight excess of HCl. The authors studied conditions of acid and alkaline decomposition of the concentrates in heated ball mills. Two-stage processes of acid and alkaline decomposition of concentrates ensuring a 99.5% stripping degree within 2 - 4 hours, were developed under industrial conditions. The behavior of main admixtures (Mo, P and As) was studied at individual stages of acid and alkaline processing of

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A006/A101

Investigations of processing tungsten concentrates

tungsten concentrates. An economical method was developed of producing chemically pure WO_3 and H_2WO_4 from standard solutions of commercial Na_2WO_4 with the use of $3(NH_4)_2O \cdot Na_2O \cdot 10WO_3$ as a semiproduct.

G. Svodtseva

[Abstracter's note: Complete translation]

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APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, K.Ya.; YURKEVICH, Yu.N.; SKOROV, V.A.

Treatment of intermediate molybdenum products for ammonium molybdate used in agriculture. TSvet. met. 35 no.9:67-70 S '62. (MIRA 16:1)

(Ammonium molybdate)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, K.Ya.; GLEBOV, Yu.M.; TARAKANOV, B.M.; KULAKOVA, V.V.; KAPKAYEVA, Kh.

Production of ammonium paratungstate from autoclave solutions by an acid-free method. TSvet. met. 36 no.1:54-57 Ja '63. (MIRA 16:5)

(Ammonium tungstate) (Hydrometallurgy)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, K.Ya.; KULAKOVA, V.V.

Hypochlorite treatment of lean molybdenum intermediate products.
TSvet. met. 36 no.9:88-89 S '63. (MIRA 16:10)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, K.Ya.; YURKEVICH, Yu.N.

Ferromolybdate ($FeMoO_4$). Zhur. prikl. khim. 36 no.12:2584-2587 D'63. (MIRA 17:2)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

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[illegible], Ya.B.; [illegible], E.Ya.; [illegible], E.N.

Acid processing of wolframite concentrates. Zhur. prikl. khim. 37 no.10:2112-2120 O '64. (MIRA 17:11)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, K.Ya.; YURKEVICH, Yu.N.; KULAKOVA, V.V.

System Na_2WO_4 - NH_4Cl - HCl - H_2O at 25°C and pH 7,0. Zhur.neorg. khim. 10 no.4:961-964 Ap '65. (MIRA 18:6)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, K.Ya.; YURKEVICH, Yu.N.; KULAKOVA, V.V.

Solubility in the system ammonium paratungstate ammonium chloride-water at 25°C. Zhur. neorg. khim. 10 no.2:555-557 F '65. (MIRA 18:11)

1. Submitted Nov. 18, 1963.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L., inzhener-kapitan 2-go ranga

Control the economy of power plants. Tekh. i vooruzh. no.5:60-62 My '64. (MIRA 17:9)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.

Long-distance discussion! Izobr.i rats. no.9:45 S '60.
(MIRA 13:10)

1. Nachal'nik Byuro ratsionalizatorov i izobretateley Okhtinskogo khimkombinata, Leningrad.
(Leningrad--Inventions, Employees')

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L., inzh.

Necessity of taking into account the differential metacentric radius in determining the increment of the transverse metacentric height. Mor.flot 21 no.3:9 Mr '61. (MIRA 14:6)
(Stability of ships)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAFIRO, L. (Kiyev)

On optimum farm sizes. Vop. ekon. no.8:147-151 Ag '61. (MIRA 14:7)
(Ukraine--Farm management)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

ANDROSOVA, S.O.; APROSINA, Z.G.; BEZRODNYKH, A.A.; VERMEL', A.Ye.; VINOGRADOVA, O.M.; LEVITSKIY, E.R.; MAKARENKO, I.I.; MAKSHANOV, D.A.; POLYANTSEVA, L.R.; SUMAROKOV, A.V.; SHATALOV, N.N.; SHAPIRO, L.A.; TAREYEV, Ye.M., prof., red.; MEL'NIKOV, Ye.B., red.

[Occupational diseases] Professional'nye bolezni; uchebnoe posobie dlia studentov sanitarno-gigienicheskikh fakul'tetov. Pod red. E.M.Tareeva. Moskva, 1963 p. 223 p. (MIRA 16:6)

1. Moscow. Pervyy meditsinskiy institut. 2. AMN SSSR (for Tareyev).

(OCCUPATIONAL DISEASES)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

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L 27475-66 EWT(m)/T/EWP(t) IJP(c) JD/HW

ACC NR: AP6015626 (N) SOURCE CODE: UR/0413/66/000/009/0033/0033

INVENTOR: Shchesno, L. P.; Goncharevskiy, M. S.; Tsvetun, A. S.; Shapiro, L. A.; Brechkevich, V. V.

39
B

ORG: none

TITLE: Method of heat treatment of stainless steel tubes. Class 18, No. 181144

18 18

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 33

TOPIC TAGS: steel, stainless steel, steel tube, steel corrosion, intergranular corrosion, corrosion prevention

ABSTRACT: This Author Certificate introduces a method of heat treatment of stainless-steel tubes. The tubes are vacuum annealed to decarburize the surface layer. Prior to vacuum annealing, an oxide film is formed on the tube surfaces by annealing in air at approx. 800C for 10—15 min to prevent intergranular corrosion. [ND]

SUB CODE: 13/ 11/ SUBM DATE: 29Jan63/ ATD PRESS: 4260

Card 1/1 BLG UDC: 621.785.345

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SHAPIRO, L. B.

CA

28

Problems of a laboratory in a sugar factory. L. B. Shapiro. *Sakhar. Prom.* 1948, 22-5; *Sugar Ind. Abstracts* 10, No. 4, 46(1948). R. D. H.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

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Sharin, [illegible]

[illegible], [illegible] L. D. Shapiro, Izvestkovyaya separatsiya sakhara iz patoki (Lime Separation of Sugar from Syrup), Gizlegnishchepron.

The booklet presents the entire complex of problems pertaining to lime separation from syrup in sugar production, including a detailed description of the technological plan and equipment, the basic requirements for conducting the syrup process, and a description of the problems of production control and computation. Also included are a listing of products and all equipment, and an estimate of heat requirement.

The booklet is intended for engineering-technical workers of the sugar industry.

SO: Sovetskiye knigi (Soviet Books), No. 127, 1953, Moscow, (U-6472)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

VOSTOKOV, A.I.; LEPESHKIN, I.P.; YEPISHIN, A.S., inzhener, retsenzent; SHAPIRO, L.B., inzhener, spetsredaktor; KHMEL'NITSKAYA, A.Z., redaktor; MUSTAFIN, A.M., tekhnicheskiy redaktor.

[Manufacture of beet sugar] Proizvodstvo sakhara iz svekly. Moskva, Pishchepromizdat (Uchebnoe posobie dlia podgotovki kadrov massovykh professii) no.4 [Heating and evaporation of the juice] Nagrevanie i vyparivanie soka. 1956. 38 p. (Sugar industry) (MLRA 9:6)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

MOGIL'NYY, Yevgeniy Akimovich; SHAPIRO, Lazar' Borisovich; LEPESHKIN, I.P., inzh., retsenzent; SILIN, P.M., prof., spetsred.; KHMEL'NITSKAYA, A.Z., red.; TARASOVA, N.M., tekhn.red.

[Separation of sugar from molasses] Separatsiia sakhara iz melassy. Izd.2., perer. i dop. Moskva, Pishchepromizdat, 1959. 261 p. (MIRA 13:2)
(Sugar) (Molasses)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

BOGOLEPOV, N. K.; LEBEDEV, V. V.; SHAPIRO, L. B. (Moskva)

Indices for the early hospitalization and moving of patients with cerebral insults. Vrach. delo no.7:10-14 Jl '62. (MIRA 15:7)

1. Klinika nervnykh bolezney (zav. - prof. N. K. Bogolepov) Vtorogo meditsinskogo instituta imeni N. I. Pirogova, neyrokhirurgicheskoye otdeleniye, travmatologicheskaya klinika (zav. - prof. I. I. Sokolov) Instituta imeni N. V. Sklifosovskogo, Moskovskaya stantsiya skoroy pomoshchi.

(APOPLEXY)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.B., POPOV, V.G., dotsent; ROMADIN, N.A.; SMETNEV, A.S.; BELKIN, V.S.

Treatment and hospitalization of patients with myocardial infarct complicated by collapse. Sov.med. 26 no.1:18-21 Ja '63. (MIRA 16:4)

1. Iz fakul'tetskoy terapevticheskoy kliniki (dir. - deystvitel'nyy chlen AMN SSSR prof. V.N.Vinogradov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova i Stantsii skoroy meditsinskoy pomoshchi Moskvy (nach. L.B.Shapiro).

(HEART--INFARCTION) (SHOCK)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.B.; ROMODIN, N.A. (Moskva)

Availability of special automobiles at medical first aid stations in Moscow. Zdrav.Ros.Feder. 7 no.3:19-21 Mr '63.

(MIRA 16:3)

(CARDIOVASCULAR SYSTEM—DISEASES)
(MOSCOW—FIRST AID IN ILLNESS AND INJURY)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.B.

"Purification of juices in sugar manufacture" (from "Gazeta Curkowniczej," vol. 6, 1962). Sakh. prom. 37 no.5:77 My '63. (MIRA 16:6)

(Sugar manufacture)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.B., zasluzhennyy vrach RSFSR; LEBEDEV, V.V., kand.med. nauk (Moskva)

New organizational forms in the work of the Moscow Medical First Aid Station. Sov. zdrav. 22 no.6:31-33'63. (MIRA 16:9)
(MOSCOW--FIRST AID IN ILLNESS AND INJURY)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L. D.

6764. Volkov, S.M., Kalashnikov, K. Ya. i Shapiro, L. D.
Protravlivaniye semyan sel'skokhozyaystvennykh Kyl'tur. M.-L.,
Sel'khozgiz, 1954. 99 s. s. ill. 20 sm. 25.000 ekz. 1 r. 35 k.
--(55-2321) 631.531. 17

SO: Knizhnaya Letopis' No.6, 1955

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.D., kand.ekonomicheskikh nauk

Farming practices on the "Chervonyi prapor" Collective Farm.
Zemledelie 8 no.10:48-54 O '60. (MIRA 13:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut ekonomiki i organizatsii sel'skogo khozyaystva.
(Khorol District--Agriculture)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

VINOKUR, S.A., inzh.; SHAPIRO, L.G., inzh.

Eliminating possible error in calculating stability during heavy listing. Sudostroenie 25 no.3:12-15 Mr '59. (MIRA 12:5)

(Stability of ships)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.G., inzh.; PANN, I.A., inzh.

Device for the flooding of ship-raising pontoons on rough waters.
Sudostroenie 29 no.6:47-49 Je '63. (MIRA 16:7)
(Pontoons) (Damping (Mechanics))

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SMAIKO, L. I.

"P. P. Pelekhin and Antisepsis in Russia," Khirurgiya, No. 3, 1949. Mor., Clinic, General Surgery, Mil. Med. Acad. im. S. M. Kirov, -c1949-.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.I. (Petrozavodsk, ul. Gogolya, d.18, kv. 32)

Case of gastric reticulosarcoma. Vop.onk. 5 no.6:742-745 '59. (MIRA 12:12)

1. Iz khirurgicheskogo otdeleniya N-skogo gospitalya (glavnyy khirurg - L.I. Shapiro).

(STOMACH NEOPLASMS, case reports
reticulum cell sarcoma (Rus))
(SARCOMA, RETICULUM CELL, case reports
stomach (Rus))

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.I., podpolkovnik meditsinskoy sluzhby, kand.med.nauk

Surgical method in perforated ulcers of the stomach and duodenum. Voen.-med.zhur. no.2:27-29 F '60. (MIRA 13:5)
(PEPTIC ULCER PERFORATION surgery)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L. I.

28

New type of diffusion battery with improved circulation. L. I. SHAPIRO. *Nauk Zapiski Tzukrovo Prom.* 11, 247-56(1931). - Instead of suspending chains in the cells of a diffusion battery for better circulation of the juice, S. proposes to cut the battery into two parts and instal a pump. A special device must be attached to each cell for regulating intake and outlet juice. The pressure on the diffusion juice can be decreased. The last cell, being connected to the measuring tank on the lower floor, forms a siphon, and the suction obtained in the last cell increases circulation of the juice. Detailed description of the method, two schemes and results of expts are shown. V. F. B.

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.I.

Conversion of a three-valve diffusion battery to the five-valve type. Sakh.prom. 30 no.4:51 Ap '54. (MLRA 9:8)

1. Ukrgiprosakhar.

(Sugar machinery)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.I.

Five-valve diffusion battery. Sakh.prom. 30 no.9:59-60 S '56. (MLRA 10:3)

1. Ukrgiprosakhar.

(Diffusers)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L. I.

8

(E4)

Apparatus for purifying gases. M. I. Olevinskii, M. D. Litherman, E. G. Pastukhov, L. I. Shapiro, N. Sh. Sanullin, and N. V. Baley. U.S.S.R. 100,654, July 25, 1957. Gases ejected from H_2SO_4 tower systems are purified of N oxides and H_2SO_4 droplets and vapors by passing them through an app. filled with ceramic rings and bathed with H_2SO_4. In the upper part of the app. the gases [illegible] M. Hosch

MT

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.I.

Industrial practice. Sakh. prom. 31 no.5:28 My '57. (MLRA 10:6)
(Sugar industry--Equipment and supplies)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.I.

Steam consumption in continuous diffusion apparatus. Sakh. prom. 31 no.6:49-50 Je '57. (MIRA 10:6)

1. Ukrgiprosakhar.
(Diffusers)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.I.

What it was like to work in sugar mills before the Revolution.
Sakh. prom. 31 no.11:48-51 N '57. (MIRA 11:1)
(Sugar industry--History)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.I.

Removing incrustation from the first evaporator body. Sakh. prom. 32 no.5:51-52 My '58. (MIRA 11:6)
(Evaporators)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.I.

Universal base for centrifugal pumps and electric motors. Sakh. prom. 32 no.5:52-54 My '58. (MIRA 11:6)
(Foundations) (Industrial equipment)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.I.

Two-stage diffusion battery. Sakh. prom. 33 no.8:9-10 Ag '59.
(MIRA 12:11)

(Sugar manufacture)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.I.

Economy of fuel for beet pulp drying. Sakh.prom. 34 no.3:31-32 Mr '60. (MIRA 13:6)
(Sugar beets--Drying)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L. I.; ZAV'YALOV, V.V.

A mobile unloading scraper with electric remote control. Khim.prom. no. 7:207 Jl'47. (MLRA 8:12)

1. Konstantinovskiy khimicheskiy zavod
(Material handling) (Loading and unloading)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

1. SAPIRO, L.I.

2. USSR (600)

4. Electric Conductors

7. Use of open bar conductors in dusty buildings, Prom.energ. 10 no. 4, 1953.

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

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO, L.I., inzhener.

Contribution to the planning of rules concerning the installation of bus bar lines for electric transmission. Elektrichestvo no.1:78-79 Ja '54. (MLRA 7:2)

1. Tyazhpromelektroproyekt. (Electric conductors)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SAPIRO, Lev Isayevich; KOFMAN, K.D., redaktor; SKVORTSOV, I.M., tekhnicheskiy redaktor;

[Computational method for balancing machine shafts] Raschetnyi metod tsentrirovaniia valov mashin. Moskva, Gos.energ.izd-vo, 1955. 103 p. (Shafts and shafting)(Balancing of machinery) (MLRA 8:5) (Electric machinery)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SA PIRO, L. I.

2

18 4E2c

Protection of an Electrical Resistance Furnace. L. I. Spiro. (*Stal'*, 1956, (6), 569-570). [In Russian]. Defects likely to develop in industrial (several hundred kW) resistance furnaces are listed and measures for avoiding them briefly considered.—S. K.

RB

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SAPIRO, L.I., inzhener.

Disalignment of flanged shaft couplings for electric drives. Prom. energ. 11 no.10:8-10 O '56. (MLRA 9:11)

1. Gosudarstvennyy politekhnicheskiy institut Tyazhpromelektroproyekt.
(Couplings) (Electric driving)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SAPIRO, L.I., inzhener.

The protection of resistance furnaces. Stal' 16 no.6:569-570 Je '56. (MLRA 9:8)

1. Dnepropetrovskoye otdeleniye Tyazhpromelektroproyekt.
(Electric furnaces)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SAPIRO, L.I., Inzhener.

Operation of electric drive shafts. Prom.energ. 12 no.1: 26-29 Ja '57. (MLRA 10:2)

1. GPI Tyazhpromelektroproyekt.
(Electric driving)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SAPIRO, Lev Isayevich; KOFMAN, K.D., red.; LARIONOV, G.Ye., tekhn.red.

[Calculation method for centering machine shafts] Raschetnyi metod tsentrirovaniia valov mashin. Izd.2., perer. Moskva, Gos. energ.izd-vo, 1960. 110 p. (MIRA 13:7)
(Shafting)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

POLOVENKO, I.S., kand. ekon. nauk,; SHIMKO,N.I., agronom-ekonomist,; ARTYKOV, A., BORISOV, V.A., GONCHAROV, A.I., KLOTS,Ye.A., SPERANSKIY, V.Z., SHAPIRO, L.L.; KALASHNIKOVA, V.S.,red.; BALLOD, A.I., tekhn. red.

[Experience in introducing a new procedure in planning] Opyt vnedreniia novogo poriadka planitovaniia. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1958. 308 p. (MIRA 11:11)
(Agriculture)

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SHAPIRO L.L., inzh; KATS, E.G.; NIKITINA, T.I.; TAYMOVICH, Z.S.

Reorganization of the lower echelon planning of building and assembling operations in the "Sevzapmorgidrostoi" Trust. Trudy TSNIIS no.34:113-126 '60. (MIRA 13:8)
(Wages) (Construction industry—Accounting)

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"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001548320010-7

SMIRNOV, N.N., inzh., red.SHAPIRO, L.L., kand. tekhn. nauk, red.; DENISOV, P.I., red.; KAGAN, G.S., inzh., red.; IFTINKA, G.A., red.izd-va; MOCHALINA, Z.S., tekhn. red.

[Construction specifications and regulations] Stroitel'nye normy i pravila. Moskva, Gosstroiizdat. Pt.3. Sec.I. ch.3.[Construction of land improvement systems; regulations for construction and acceptance of work] Sooruzheniia meliorativnykh sistem; pravila organizatsii stroitel'stva, proizvodstva rabot i priemki v ekspluatatsiiu (SNiP III-I. 3-62). 1963. 18 p. (MIRA 16:10)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. Gosudarstvennyy komitet po delam stroitel'stva SSSR (for Smirnov). 3. Mezhduvedomstvennaya komissiya po peresmotru stroitel'nykh norm i pravil Akademii stroitel'stva i arkhitektury SSSR (for Shapiro). 4. Upravleniye proyektirovaniya, izyskaniy i issledovaniy dlya stroitel'stva gidrotekhnicheskikh sooruzheniy (for Denisov). 5. Gosudarstvennyy institut po proyektirovaniyu vodokhozyaystvennogo i meliorativnogo stroitel'stva M.M. Ministerstva sel'skogo khozyaystva SSSR (for Kagan).
(Reclamation of land)

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