and stampings and measures for preventing loss and decarburization of metal during heating are described. No personalities are mentioned. There are 53 references, all Soviet (including one translation from German).

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SKVORTSOV, A. A.

PHASE I BOOK EXPLOITATION SOV/4343

Soveshchaniye po teorii liteynykh protsessov, 3d

Usadochnyye protsessy v metallakh; trudy soveshchaniya (Shrinkage Processes in Metals; Transactions of the Third Conference on the Theory of Casting Processes) Moscow, AN SSSR, 1960. 281 p. Errata slip inserted. 3,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya.

Resp. Ed.: B.B. Gulyayev, Doctor of Technical Sciences, Professor; Ed. of Publishing House: V.S. Rzheznikov; Tech. Ed.: T.V. Polyakova.

PURPOSE: This collection of articles is intended for scientific workers, engineers, technicians of scientific research institutes and industrial plants, and for faculty members of schools of higher education.

COVERAGE: The collection contains technical papers presented at the Third Conference on the Theory of Casting Processes, organized by Liteynaya sektsiya Komissii po tekhnologii mashinostroyeniya Instituta mashinovedeniya AN SSSR (Casting Section of the Commission for Machine-Building Technology of the Institute of Science of Machines, Academy of Sciences USSR) and by Institut metallurgii imeni Baykova AN SSSR (Institute of Metallurgy imeni A.A. Baykov, Academy of Sciences USSR). The most serious defects in castings, ingots, and welds as a result of metal shrinkage are reviewed. Factors contributing to the formation of shrinkage cavities, porosity, cracks, fissures, distortion, and internal stresses are analyzed along with measures taken to prevent and remedy them. The hydrodynamics of molten metals and the process of solidification of metals are discussed. Also presented are resolutions adopted at the Conference with regard to the problem of shrinkage in metals. No personalities are mentioned. Most papers are accompanied by bibliographic references, the majority of which are Soviet.

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(20)

SKVORTSOV, A.A.

Solving the problem of metal solidification in the temperature range. Lit. proizv. no.6:37-42 Je '60. (MIRA 13:8)
(Solidification) (Founding)

S/148/60/000/007/020/023/XX
A161/A033

AUTHORS: Akimenko, A. D., Skvortsov, A. A.

TITLE: Heat transfer in the secondary cooling zone in continuous steel casting.

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no. 7, 1960, 54 - 59

TEXT: The Gor'kiy Polytechnic Institute had been commissioned by the Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (Central Scientific Research Institute of Ferrous Metallurgy) in 1959 to carry out an investigation of heat transfer in the continuous steel casting process. The experiments had been described by A. D. Akimenko and A. A. Skvortsov. (Ref. 1: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1959, No. 2); they consisted in the jet cooling of the ingot specimen by water, compressed and fan air, and an air-water mixture on a test stand without support rollers. The developed method of determining the heat transfer factor was checked in a continuous casting installation at the "Krasnoye Sormovo" plant. The heat transfer was

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Heat transfer in the secondary ....

measured in the secondary cooling zone, and the heat transfer drop through the supporting rollers was taken into account by the factor

$$K_{evap} = \frac{\alpha_{actual}}{\alpha_{calculated}} .$$

The K_{evap} was determined in the real working unit and in a stand fitted with support rollers. The real heat transfer in the working unit was calculated by the heat volume removed by cooling water from the ingot:

$$\alpha_{actual} = \frac{G[(1 - x) \cdot (t_2 - t_1) + x(640 - t_1)]}{F(t_{surf} - t_1)} \text{ Kcal/m}^2 \cdot \text{h} \cdot {}^\circ\text{C}, \quad (1)$$

where G is water consumption measured by flow meter, kg/h; t_2 and t_1 - the end and the start water temperature, °C; F - cooled surface, m^2; t_{surf} - mean surface temperature °C; $x = \frac{D}{G}$ - the relative water quantity turning into steam during the secondary cooling process (D - the absolute quantity of formed steam, kg/h). The measurement results were (the mean of 11 tests): 1) Ingot

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Heat transfer in the secondary ...

stretching speed c = 0.7 m/min; 2) water temperature on the input $t_1 = 25^\circ$; 3) water temperature difference $\Delta t = t_2 - t_1 = 25^\circ$; 4) specific water consumption

$$\frac{Q_B}{F} = 22 \text{ m}^3/\text{m}^2\text{h};$$

5) mean temperature of cooled surface $t_{surf} = 630^\circ$; 6) mean actual heat transfer factor $\alpha_{actual} = 1500$ Kcal/m$^2 \cdot$ h$^\circ$C; 7) evaporation factor x = 2.8 %. The evaporation factor increased with a reducing specific water consumption and reached 12 % and higher at 5 m^3/m^2/h. The knowledge of the x factor is of practical interest for the designing of fan systems for continuous casting units. Thus it is planned to build a special installation for the condensation of steam at the new unit under construction at the Stalinskiy metallurgicheskiy zavod (Stalino metallurgical plant). The $K_{исп}$ (K_{evap}) was also determined in the laboratory, on a stand imitating a real unit. The dimensionless center temperature and the Fourier criterion were determined by a temperature diagram, and the Bio (Russian transliteration) criterion by the known D. V. Budrin diagrams (Ref. 1). The determined $K_{evap} = f\left(\frac{Q_B}{F}\right)$ is shown in

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Heat transfer in the secondary ....

Figure 1. The Novotul'skiy metallurgicheskiy zavod (Novotula Metallurgical Plant) uses the roller cooling method without jet developed by TsNIIChM, consisting in pouring water on the supporting rollers from special collectors under slight pressure. This method was also studied on a laboratory stand. The results are given (Figure 2). The water consumption is lower with this method, but the cooling intensity cannot be sufficiently controlled. The effect of the spacing of the support rollers was studied, and the K_F factor (cooled surface utilization factor) was determined:

$$K_F' = \frac{S - d}{S} \qquad (3)$$

where S - roller pitch; d - diameter of support rollers. The actual K_F value varies in the operating units and the new ones under construction:

	d	S	K_F
at "Krasnoye Sormovo"	110	130	0.153
at the Novotula Metallurgical Plant	110	150	0.265
in units under construction	110-130	140-210	0.215-0.238.

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Heat transfer in the secondary ....

The results of the stand tests are given (Figure 3). The formula used for the recalculation of stand test results for the full-scale roller cooling unit is

$$\alpha_2 = \alpha_1 \frac{\left(\frac{V}{F}\right)_2}{\left(\frac{V}{F}\right)_1} \cdot \frac{\tau_1}{\tau_2} \cdot \frac{\Delta i_2}{\Delta i_1} \cdot \frac{\gamma_2}{\gamma_1} \cdot K_p K_{evap} \qquad (4)$$

where α_2 - the heat transfer factor in operating units, Kcal/m^2h °C; α_1 - the heat transfer factor during the cooling of test specimen, determined by Figure 2; $\left(\frac{V}{F}\right)_2, \left(\frac{V}{F}\right)_1$ - the respective relation of volume to surface of the specimen and the ingot; τ_1, τ_2 - the cooling time of the specimen and the ingot; γ_2, γ_1 - specific gravity of the specimen and the ingot; $\Delta i_2, \Delta i_1$ - heat content variation in 1 kg metal in the secondary cooling zone and on the stand (full data for calculating the Δi value are given in Ref. 1). The correction factor for water pressure before the jets is calculated by the emphirical formula

$$p = \left(\frac{P}{0.8}\right)^{0.25} . \qquad (5)$$

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Heat transfer in the secondary ....

For cooling through rollers without nozzles, $K_p \cong 1.0$, and K_{evap} is found from Figure 1 (K_p is still to be determined with more accuracy, it may be assumed to be $\cong 1.0$ in first approximation). The method permits the determination of basic data for the designing of new continuous casting units. There are 3 figures and 2 Soviet-bloc references.

ASSOCIATION: Gor'kovskiy politekhnicheskiy institut (Gor'kiy Polytechnical Institute)

SUBMITTED: June 15, 1959

Card 6/9

S/182/60/000/011/012/016
A161/A029

AUTHORS: Akimenko, A.D., Kuzelev, M.Ya., Skvortsov, A.A.

TITLE: Experimental Investigation Into Heating of Steel Blanks for Forging and Stamping in Molten Salts

PERIODICAL: Kuznechno-shtampovochnoye proizvodstvo, 1960, No.11, pp.40-42

TEXT: Information is given on experiments at the "Krasnoye Sormovo" works with forging blank heating in molten salt bath heated to 1,300°C. Two salt mixtures were used: a) 30% $BaCl_2$ and 70% NaCl and b) 70% $BaCl_2$ and 30% NaCl. Cylindrical specimens 10, 20 and 30 mm in diameter were heated to 1,200-1,250°C. The results confirmed the data obtained by LPI and NZL (Ref. 1). The heating time is 2-3 times shorter than in a chamber furnace; heat losses from the bath surface can be reduced to minimum by using bath covers and covering the bath surface with a layer of graphite powder. The heating costs are approximately the same as in furnaces but the salt bath has technological advantages. The power characteristic of the СП-2 (SP-2) electrode bath is given (Fig. 1); its efficiency at the rated work capacity of 30 kg/hour is only 20-25% and decreases abruptly with

Experimental Investigation Into Heating of Steel Blanks for Forging and Stamping in Molten Salt

reduced load. Special baths with higher efficiency (35-40%) are possible in principle. The heat release coefficient from the liquid salt to the metal was determined in the following manner. Using the temperature diagram (Fig. 2) in the specimen center,

$$\theta = \frac{(t_{med} - t_{cent})_1}{(t_{med} - t_{cent})_{init}} \qquad (1)$$

where $(t_{med} - t_{cent})_1$ is the real (varying) difference of the medium and the specimen center temperature, and $(t_{med} - t_{cent})_{init}$ the initial difference. [Abstractor's note: subscripts $_{med}$ (medium), $_{cent}$ (center), $_{init}$ (initial) are translations from the Russian $_{ср}$ (sreda), $_{ц}$ (tsentr), $_{нач}$ (nachal'nyy)]. Knowing the θ values and the Fourier criterion (Fo), the known D.V. Buarin diagrams may be used for finding the Bio (bi)

Card 2/ 9 criteria, but in view of low Bi

Experimental Investigation Into Heating of Steel Blanks for Forging and Stamping in Molten Salt

values in the experiments (10 and 20 mm blank diameter), a formula from Ref. 2 was used for the calculation:

$$\theta = e^{-2FoBi} \quad (2)$$

Using the obtained Bi value, the mean heat release coefficient α_m is found in the interval from the initial to the final temperature of the center (or the surface):

$$\alpha_m = \frac{1}{\tau_2 - \tau_1} \int_{t_{init}}^{t_{fin}} \alpha_{true} d\tau \quad (3)$$

where $(\tau_2 - \tau_1)$ is the heating efficieny. [Abstractor's note: Subscripts fin (final) and true (true) are translations from the Russian кон (konechnyy) and ист (istinnyy)]. The mean values of the physical material constants in the given temperature interval must be substituted for calculation of

Experimental Investigation Into Heating of Steel Blanks for Forging and Stamping in Molten Salt

the Bi and Fo criteria. The determined mean heat release coefficient values are shown (Fig. 3) in the form of the relation $\alpha_m = f(t_{mean})$. [Abstractor's note: Subscript $_{mean}$ is a translation from the Russian $_{cp}$ (sredniy)]. (The diagram includes data obtained by V.F. Kopytov (Ref. 3) and D.V. Vishnyakov (Ref. 4). Vishnyakov obtained a higher heat release coefficient using pure $BaCl_2$.) The heating time for blanks can be calculated knowing the heat release coefficient. The calculated time (τ) for cylindrical blanks from 40Kh (40Kh) steel at α_m=500 kcal/m^2·hr·degree is given (Table 2):

Heating temperature °C	Time in seconds for blanks diameters 30 mm	20 mm	10 mm
1,200	160	110	56
1,100	90	60	30
1,000	70	47	23

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S/182/60/000/011/012/016
A161/A029

Experimental Investigation Into Heating of Steel Blanks for Forging and Stamping in Molten Salt

The theoretical calculation with convective heat exchange formulae in liquid media gives exaggerated figures, which can be explained by the thermal resistance of the solidified salt layer. The following conclusions are drawn: 1) the method is applicable to practice and has technological advantages; 2) the mean heat release coefficient from the bath to the metal in $NaCl + BaCl_2$ at a bath temperature of 1,200-1,350°C is α_m = = 500 kcal/m^2 · hour · degree; 3) the obtained data make possible the calculation of heating process variables. Engineers N.P. Kashcheyeva, V.M. Kop'yev and G.N. Khoperskaya took part in the experiments. There are 4 figures and 5 Soviet references.

Card 5/9

KUZELEV, Mikhail Yakovlevich; SKVORTSOV, Aleksey Anatol'yevich; SELYAKOV, Nikolay Nikolayevich; DUBITSKIY, G.M., doktor tekhn. nauk, retsenzent; ZOBNIN, B.F., kand. tekhn. nauk, retsenzent; KOROTKOV, V.G., kand. tekhn. nauk, retsenzent; LEVCHENKO, P.V., kand. tekhn.nauk, retsenzent; MAKURIN, P.I., kand. tekhn. nauk, retsenzent; PASTUKHOV, A.I., kand. tekhn. nauk, retsenzent; PORUCHIKOV, Yu.P., kand. tekhn. nauk, retsenzent; ROZENBERG, I.A., kand. tekhn. nauk, retsenzent; SERGEICHEV, N.F., kand. tekhn. nauk, retsenzent; FILIPPOV, A.S., kand. tekhn. nauk, retsenzent; YAROSHENKO, Yu.G., kand. tekhn. nauk, retsenzent; BAZAROVA, N.V., inzh., retsenzent; BLANK, E.M., inzh., retsenzent; VOLPYANSKIY, L.M., inzh., retsenzent; ZAKHAROV, B.P., inzh., retsenzent; MYSHALOV, S.V., inzh., retsenzent; RAZUMOVA, M.S., inzh., retsenzent; SHABALIN, L.A., inzh., retsenzent; SHKUNDI, R.M., inzh., retsenzent; DUGINA, N.A., tekhn. red.

[Handbook of foundry practice] Spravochnik rabochego-liteishchika. 1zd.3. Moskva, Mashgiz, 1961. 584 p. (MIRA 15:4)

(Founding--Handbooks, manuals, etc.)

SKVORTSOV, A.A.

Formation of a continuous, flat steel ingot and the occurrence of defects on its surface. Izv. vys. ucheb. zav.; chern. met. 4 no.7:78-87 '61. (MIRA 14:8)

1. Gor'kovskiy politekhnicheskiy institut.
(Steel ingots—Defects)
(Continous casting)

S/148/61/000/010/001/003
E111/E435

AUTHORS: Akimenko, A.D., Skvortsov, A.A.

TITLE: Heat transfer in moulds for continuous casting of steel

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, no.10, 1961, 29-36

TEXT: The authors give results of their further investigations on heat transfer in continuous-casting moulds for steel. Simultaneous solution of equations for the heat flux from the wall to the cooling water and in the copper wall, combined with the equation for heat flux from the liquid metal to the wall, gives a system independent of the outer temperature of the wall. Fig.1 shows the overall heat transfer coefficient in kcal/m^2 hour deg (allowing for the extent to which the lubricant burns away on the walls) as functions of the water flow rate at the wall (m/sec); curve 1 relates to a turbulent, curve 2 to a laminar boundary layer. These results, those obtained on a hydraulic model (Ref.3: A.A.Skvortsov, A.D.Akimenko, Izv VUZ Chernaya metallurgiya, no.3, 1958) and others indicate that for the direct-contact zone, the overall heat transfer coefficient is 1600 to 2000 kcal/m^2 hr °C.

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Heat transfer in moulds ...

The main heat removal occurs in the second zone, through the gap between the skin and the mould wall. The gap width δ' is found from the equation

$$\delta' = 0.5k_{lin}\left[t_{liq} - (t_{liq} + t_{surf})0.5\right] l_o\varphi \qquad (10)$$

where k_{lin} is the coefficient of linear expansion of the steel; t_{liq} its crystallization temperature, °C; t_{surf} the crust surface temperature; l_o the initial length of the side perpendicular to the gap walls, m; φ a coefficient allowing for other factors. The equation also enables the limiting taper of the mould to be calculated; this is shown in Fig.3 as a function of the billet surface temperature as it leaves the mould. The authors used a hydraulic integrator to find the billet surface temperature along the mould for mould length of 1000, 1250 and 1500 mm and withdrawal rates of 0.6, 0.7 and 0.8 m/min. At the same time, heat balances for forty heats on 420 x 175 mm slab moulds at the "Krasnoye Sormovo" works were compiled. Mould lengths were 1250 (shortened) and 1500 mm (standard) with mould water flows of 118000 and 121000 kg/hour. The average values of

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...culation of the

heat transfer in the mould. A.I.Veynik is mentioned in connection with his work on heat transfer coefficients. There are 8 figures and 9 Soviet-bloc references.

ASSOCIATION: Gor'kovskiy politekhnicheskiy institut
(Gor'kiy Polytechnical Institute)

SUBMITTED: November 25, 1960

Card 4/5

AKIMENKO, A.D., dotsent, kand.tekhn.nauk; SKVORTSOV, A.A., doktor tekhn.nauk

Capacity of water sprayer nozzles for continuous steel casting equipment. Stal' 21 no.2:124 F '61. (MIRA 14:3)
(Continuous casting) (Metallurgical furnace—Cooling)

AKIMENKO, A.D.; KUZELEV, M.Ya.; SKVORTSOV, A.A.; KHOLSHCHEVNIKOV, A.Ya.

Heating blanks for forging and die stamping in a nonoxidizing heating compartment furnace. Kuz.-shtam. proizv 4 no.6:40-42 Je '62. (MIRA 15:6)

(Furnaces, Heating)

SKVORTOV, A.A. [Skvortsov, A.A.]

Formation of the continuously flat steel ingot, and appearance of defects on its surface. Analele metalurgie 16 no.1:35-45 Ja-Mr. '62.

SKVORTSOV, A.A.

Solidification of square section steel castings. Izv. vys. ucheb. zav.; chern. met. 5 no.10:155-165 '62. (MIRA 15:11)

1. Gor'kovskiy politekhnicheskiy institut.
(Steel ingots) (Solidification)

AKIMENKO, A.D.; RUKAVISHNIKOV, L.G.; SKVORTSOV, A.A., doktor tekhn. nauk, otv. red.; KOZYULINA, R.M., red.

[Temperature measurements; laboratory work on the course "Control and automation of technological processes"] Izmerenie temperatur; laboratornyi praktikum po kursu "Kontrol' i avtomatizatsiia tekhnologicheskikh protsessov." Gor'kii, Gor'kovskii politekhn. in-t, 1963. 67 p. (MIRA 17:3)

SKVORTSOV, A.A.

Solidification of steel ingots of rectangular cross section in continuous casting equipment. Izv. vys. ucheb. zav.; chern. met. 6 no.9:68-76 '63. (MIRA 16:11)

1. Gor'kovskiy politekhnicheskiy institut.

S/0182/64/000/004/0037/0038

ACCESSION NR: AP4034599

AUTHORS: Akimenko, A. D.; Kozlov, A. I.; Skvortsov, A. A.

TITLE: Investigation of heating steel objects in molten glass

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 4, 1964, 37-38

TOPIC TAGS: steel, steel heating, molten glass, thermocouple PP, potentiometer EPP 09 M, heat convection, steel U8, steel 35, Fourier criterion

ABSTRACT: Results obtained in experimental heating of steel objects in molten glass prior to forging and stamping are discussed. Samples were held in chamotte crucibles and were heated at 1150-1250C in a silicon carbide furnace. The temperature at the center of a sample was measured with a thermocouple PP connected to an electronic potentiometer EPP-09-M. Samples were made of steel 35 and steel U8 and were either 12 or 25 mm in diameter. The glass consisted of 72% SiO_2, 14.2% Na_2O, 7% CaO, 4% MgO, 2.8% Al_2O_3. Dimensionless center temperature and Fourier number were determined from the temperature diagrams, while D. V. Budrin's charts or the formulas for thin plates (at a low Bi concentration) provided the coefficient of heat exchange. This coefficient proved similar to that obtained in air at 1180C. It dropped at the beginning of heating due to the formation of a viscous glass layer

Card 1/2

AKIMENKO, A.D.; ASTROV, Ye.I.; SKVORTSOV, A.A.; POLUSHKIN, N.A.; KLIPOV, A.D.

Effect of the intensity of secondary cooling on the quality of continuous casting. Stal' 24 no.12:1088-1089 D '64.
(MIRA 18:2)

1. Gor'kovskiy politekhnicheskiy institut im. Zhdanova, TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni I.P. i Gor'kovskiy metallurgicheskiy zavod.

SKVORTSOV, A. A.

"Heat transfer and solidification in the continuous casting of steel."

report submitted for Intl Conf on Continuous Casting of Ferrous and Non-Ferrous Alloys, Birmingham, UK, 28-30 Apr 1965

Gorkiy Polytechnical Inst, Gorkiy, USSR.

L 62593-65 EPF(c)/EPF(n)-2/EWT(1)/EWT(m)/EWG(m)/EWP(b)/T/EWP(t) Pr-4/
Ps-4/Pu-4 WW/JD

ACCESSION NR: AP5018183 UR/0148/65/000/007/0196/0199
669.15:669.046.66.045.2

35
34
B

AUTHOR: Akimenko, A. D.; Kozlov, A. I.; Skvortsov, A. A.

TITLE: Characteristics of the process of heat transfer during heating of steel blanks in molten glass

SOURCE: IVUZ. Chernaya metallurgiya, no. 7, 1965, 196-199

TOPIC TAGS: heat transfer coefficient, heat treatment, molten glass, steel heating

ABSTRACT: One of the methods for nonscale heating of steel blanks for forging and stamping involves heating in molten glass. A study of the heat transfer involved in this process was made at the Gor'kovskiy politekhnicheskiy institut (Gor'kiy Polytechnic Institute). A crust of glass forms upon immersion of the steel in the glass and never completely redissolves. Experiments with standard glass (sodium bisilicate $Na_2O \cdot 2SiO_2$) containing a minmum amount of gases and the same glass with an admixture of gas-forming substances (scale) were carried out in order to determine the role of gases dissolved in the molten glass. To this end, the coefficient of heat transfer from the molten glass to the metal was calculated by means of the relation characterizing so-called "thin" bodies

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ACCESSION NR: AP5018183

$$0 = \frac{t_{cp} - t_a}{(t_{cp} - t_a)_{max}} e^{-2FoBi} \qquad (1)$$

where $(t_{av} - t_c)$ is the actual (variable) difference between the temperature of the medium and that of the center of the specimen, $(t_{av} - t_c)_{init}$ is the corresponding initial temperature difference, and Fo and Bi are the Fourier and Biot criteria. From equation (1), it follows that

$$Bi = -\frac{\ln 0}{2Fo} \qquad (2)$$

From Bi, the average heat transfer coefficient α_H was obtained for the range from the initial to the final temperature of the specimen. The values of α_H were used to calculate the duration of the heating in the melt (see Fig. 1 of the Enclosure). The results of the experiments were treated by using the criterial relation $Nu = C(GrPr^n)^{1/4}$, characteristic

L 62593-65

ACCESSION NR: AP5018183

of heat transfer associated with free convection in molten media. Orig. art. has: 5 figures and 3 formulas.

ASSOCIATION: Gor'kovskiy politekhnicheskiy institut (Gor'kiy Polytechnic Institute)

SUBMITTED: 22Mar65 ENCL: 01 SUB CODE: MM, TD

NO REF SOV: 007 OTHER: 001

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Card

L 62593-65

ACCESSION NR: AP5018183

ENCL: 01

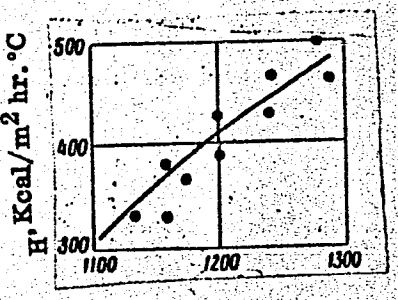


Fig. 1. α_H vs. the temperature of molten glass.

Card 4/4 bjp

L 23057-66 EWP(e)/EWT(m)/EWP(w)/T/EWP(t) JD/WH

ACC NR: AP5028996 SOURCE CODE: UR/0182/65/000/009/0037/0038

AUTHOR: Akimenko, A. D.; Kozlov, A. I.; Skvortsov, A. A.

ORG: none

TITLE: Features of the heating of steel blanks in molten glass

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 9, 1965, 37-38

TOPIC TAGS: molten glass, glass, metal heat treatment, carburization

ABSTRACT. The article is a rebuttal of the critique offered by Ye. G. Shadek in the same issue of Kuznechno-shtampovoye proizvodstvo, p 36. It is admitted that Shadek is right in pointing to the considerable carburization occurring during the initial experiments of the authors, but such carburization was of a local rather than integral character. Further, owing to the inhomogeneity of the metal, a large number of complex multi-electron elements forms at the surface. Fracture occurs chiefly along grain boundaries, with transition of the anode Fe to the melt, following the reaction $Fe-2e = Fe^{+2}$ and release of gaseous constituents at the cathode. Hence, there is reason to believe that, contrary to Shadek's assertion, the electrochemical interaction between the glass melt and metal occurs in any case and not solely when the Na_2O content of glass is less than 25%. It is shown that weight loss

Card 1/2 UDC: 621.783.2

L 23057-66

ACC NR: AP5028996

referred to unit surface area of the press-and-forge blank in g/cm^2 is a better indicator of the heating of this blank in molten glass than loss in percent of the blank's weight. On continuing their previous experiments (A. D. Akimenko, A. I. Kozlov, A. A. Skvortsov. Kuznechno-shtampovoye proizvodstvo, 1964, no. 4; 1964, no.11) the authors developed under laboratory conditions an easily fusible glass in which heating of the metal blank results in a metal weight loss of less than 0.01 g/cm^2 at 1250°C after ~30 min while at the same time markedly reducing the carburization of the metal. Orig. art. has: 1 figure, 4 formulas.

SUB CODE: 11, 13, 20/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 000

Card 2/2

L 23058-66 EWP(e)/EWT(m)/T/EWP(t) JD/WH

ACC NR: AP5028997 SOURCE CODE: UR/0132/65/000/009/0038/0041

AUTHOR: Kozlov, A. I.; Skvortsov, A. A.

ORG: none

TITLE: Semicontinuous furnace for oxidation-free heating of steel billets with molten glass in the maximum-temperature zone

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 9, 1965, 38-41

TOPIC TAGS: molten glass, glass, metal heat treatment, heat treatment furnace, heat transfer

ABSTRACT: On the basis of their previous investigations (Akimenko, Kozlov, Skvortsov Kuznechno-shtampovochnoye proizvodstvo, 1964, no. 4; 1964, no. 11) the authors developed, built and tested an experimental semicontinuous furnace with a productivity of 550-650 kg/hr (Fig. 1) designed to heat billets of steel 45 measuring 286x105x28 mm. The furnace interior is 2.8 m long, 0.6 mm wide and is equipped with four burners as well as with a pneumatic pusher rod. The furnace bottom contains a concave depression for filling with molten glass. The billets are heated to 700-750°C in the front zone of the furnace, whereupon they are pushed along on heat-resistant guide rails into the molten-glass bath where they are heated to forging temperatures (1230-1250°C). The 30° and 12° tilts of the burners and the closeness of the zone

Card 1/3 UDC: 621.783.2

L 23058-66

ACC NR: AP5028997

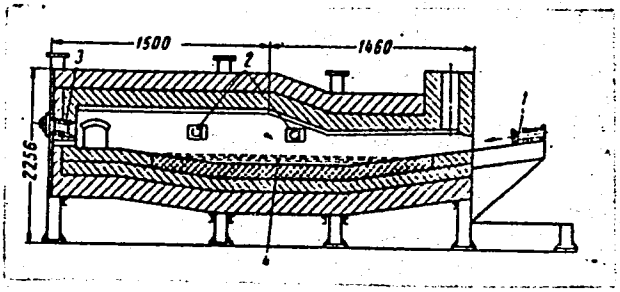


Fig. 1. Longitudinal cross section of furnace

1 - pusher rod; 2 - side burner; 3 - front burner;
4 - molten-glass pool

Card 2/3

L 23058-66

ACC NR: AP5028997

of maximum temperatures (1380-1450°C) to the surface of the glass melt assure an efficient transfer of heat to the molten glass and enhance the longevity of the furnace arch. The protection of the heat-resistant guide rails by a layer of glass in the zone of maximum temperatures makes it possible to dispense with water cooling, which greatly improves the utilization of heat in the furnace. The billets thus heated get neither oxidized nor carburized. Preliminary studies of heating cost have shown that heating in molten glass may be more economical than other heating methods, particularly as regards the heating of alloys. Orig. art. has: 4 figures, 3 tables.

SUB CODE: 11, 13, 20/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 000/

Card 3/3

BARISHPOLOV, V.F., inzh.; SKVORTSOV, A.A., kand. tekhn. nauk, red.; KOPEYKINA, L.V., red.

[Outdoor heating networks; aid for technical inspectors and foremen of construction and installation organization] Naruzhnye teplovye seti; v pomoshch' tekhnadzoru i masteram stroitel'no-montazhnykh organizatsii. Moskva, Energiia, 1964. 29 p. (MIRA 18:3)

1. Orges, trust, Moscow.

SKVORTSOV, A.A., inzh.

Using the PMT-3 device for studying the heat resistance of insulation in traction electric motors. Vest. TSNII MPS 16 no.7:54-58 O '57. (MLRA 10:11)

(Electric locomotives)

SKVORTSOV, A.A., inzh.

Porosity of traction motor insulation. Vest.TSNII MPS 18 no.1:28-30 F '59. (MIRA 12:3)
(Electric railway motors) (Insulating materials)

SKVORTSOV, A.A., inzh.

Machine for washing traction motor armatures. Elek. i tepl. tiaga 5 no.6:18-19 Je '61. (MIRA 14:10)
(Electric railway motors)

SKVORTSOV, A.A., inzh.; MINAK, P.F., inzh.

Use of "eskapon" insulation in electric traction motors. Vest. elektroprom. 32 no.9:42-45 S '61. (MIRA 14:8)
(Electric railway motors) (Electric insulators and insulation)

SKVORTSOV, A.A., inzh.

Aging of mica paper tape in the insulation of traction engine windings. Vest.TSNII MPS 21 no.2:22-23 '62. (MIRA 15:4)
(Electric motors—Windings)

SKVORTSOV, A. A., starshiy nauchnyy sotrudnik

Choice of voltage magnitude in testing the insulation of traction motors. Elek. i tepl. tiaga 6 no.9:24-25 S '62. (MIRA 15:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta Ministerstva putey soobshcheniya.

(Electric railway motors—Testing)

SKVORTSOV, A.A., inzh.

What causes the damage of the armature winding insultation of traction engines. Vest.TSNII MPS 21 no.8:7-11 '62. (MIRA 16:1)
(Electric insulators and insulation)
(Electric railway motors)

SKVORTSOV, A.A., inzh.

Increasing the reliability of the insulation of the armature windings of traction engines. Vest. TSNII MPS 22 no.4 [illegible] '63. (MIRA 16:8)

(Electric railway motors)
(Electric insulators and insulation)

SKVORTSOV, Aleksey Anatol'yevich; KOLESINA, Antonina Matveyevna; DANIL'YANTS, Svetlana Alekseyevna; PETUSHKOVA, I.K., red.

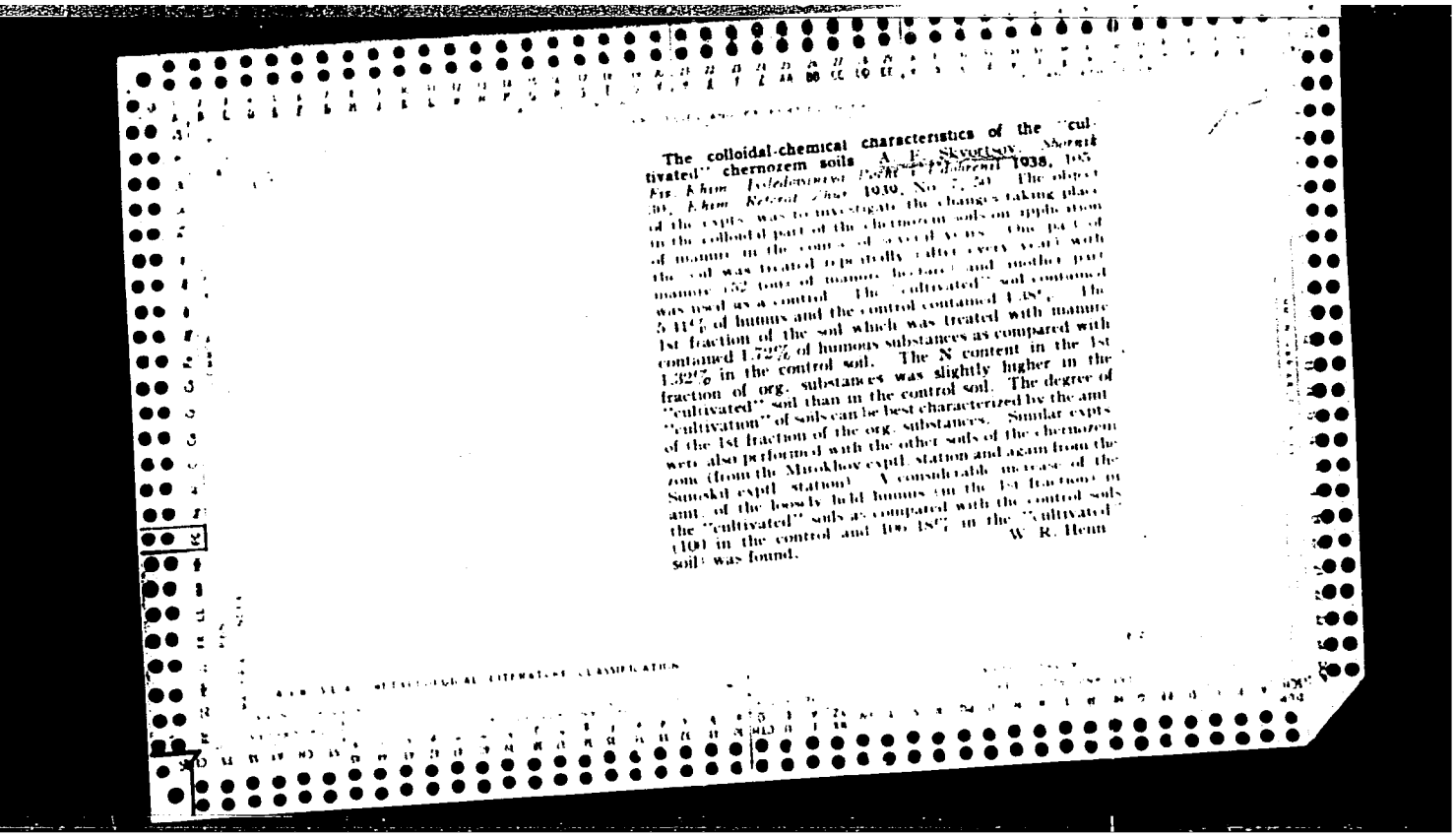
[Ways to improve the operational reliability of the insulation of the windings of electric traction motors] Puti povysheniia ekspluatatsionnoi nadezhnosti izoliatsii obmotok tiagovykh elektrodvigatelei. Moskva, Izd-vo "Transport," 1964. 28 p. (MIRA 17:8)

SKVORTSOV, Aleksey Anatol'yevich, prof., doktor tekhn. nauk;
AKINENKO, Anatoliy Dmitriyevich, dots., kand. tekhn. nauk;
KUZELOV, Mikhail Yakovlevich, dots.

[Heating units] Nagrevatel'nye ustroistva. Moskva, Vysshaia shkola, 1965. 443 p. (MIRA 18:12)

SKVORTSOV, A. B.

RT-1125 (On the question of the work on measuring of bottom silts) K voprosu o rabotakh po uchetu donnykh nasosov.
Vestnik Irrigatsii, 3(11): 45-48, 1925.(Translation does not include illustrations).



The colloidal-chemical characteristics of the "cultivated" chernozem soils A. F. Skvortsov. *Sovetsk. Pochvovedenie* [*Soviet Pedology*] 1938, 105-[illegible]. *Sb. Khim. Reformat. Zhur.* 1939, No. [illegible]. The object of the expts was to investigate the changes taking place in the colloidal part of the chernozem soils on application of manure in the course of several years. One part of the soil was treated regularly after every year with manure (52 tons of manure being used) and another part was used as a control. The "cultivated" soil contained 5.41% of humus and the control contained 4.8%. The 1st fraction of the soil which was treated with manure contained 1.72% of humous substances as compared with 1.32% in the control soil. The N content in the 1st fraction of org. substances was slightly higher in the "cultivated" soil than in the control soil. The degree of "cultivation" of soils can be best characterized by the amt of the 1st fraction of the org. substances. Similar expts were also performed with the other soils of the chernozem zone (from the Mtsekhov exptl. station and again from the Smolsk exptl. station). A considerable increase of the amt. of the loosely held humus in the 1st fraction in the "cultivated" soils as compared with the control soils (100) in the control and 186% in the "cultivated" soil was found.

W. R. Henn

SKVORTSOV, A. F.

35366. K voprosu otravopol'noy sistere zemledeliya v plodovom sadu. Soobshch. Akad nauk gruz. SSR, 1949, No. 5, s. 297-303--Bibliogr: 9 Nazv

SO: Letopis' Zhurnal'nykh Statey, Vol. 34, Moskva, 1949

1. A. F. SKVORTSOV
2. USSR (600)
4. Alluvium - Rioni River
7. Composition of river alluvia. Soob. AN Gruz. SSR 11 no. 9. 1950.

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

SKVORTSOV, A.F.

Soil cultivation in orchards. Izv.AN Arm.SSR.Biol.i sel'khoz.nauki. 5 no.11:109-117 '52. (MLRA 9:8)

1. Opytanaya stantsiya plodovodstva AN Gruzinskoy SSR, sel. Skra, Goriyskiy rayon.
(Armenia--Fruit culture)

SKVORTSOV, A F

II

USSR / Cultivated Plants. Fruits. Berries.

Abs Jour : Ref Zhur - Biol., No 34789

Authors : Skvortsov, A. F.; Dodabrishvili, M. G.; Uturashvili, T. G.

Inst : Academy of Sciences, Georgian SSR

Title : Materials for Establishing a System of Soil Maintenance in the Fruit Tree Sovkhozes of Kartli.

Orig Pub : Tr. Onytn. st. plodovodstva AN Gruz SSR, 1956, 4, 37-69.

Abstract : For the cultivation of garden soils, it is recommended that old perennial grass be plowed up across alternating bands and that the entire area be plowed up in an unbroken operation only after 3 years of cultivation. The sowing of perennial grass is then to be performed again, only along

Card 1/3

109

SKVORTSEV, A.F.

SKVORTSEV, A.F.

Gleying and physical properties of soils [with summary in English]. Pochvovedenie no.11:97-104 N '57. (MIRA 10:12)

1. Opytnaya stantsiya plodovodstva Ministerstva sel'skogo khozyaystva GruzSSR.

(Soil physics)

SKVORTSOV, A. F. Doc Agr Sci -- (diss) "Experiment of the improvement of swamps in Kolkhida by silt deposition." Mos, 1958. 37 pp (Acad Sci USSR. Soil Inst im V. V. Dokuchayev), 150 copies (KL, 13-58, 98)

KATAR'YAN, T.G., glav.red.; BLAGONRAVOV, F.P., red.[deceased]; GOLIKOVA, Z.I., red.; GOLODRIGA, P.Ya., red.; MOROZOVA, G.S., red.; NILOV, V.I., red.; OKHREMENKO, N.S., red.; PALAMARCHUK, G.D., red.; POPOV, K.S., red.; SKVORTSOV, A.F., red.; ROSSOSHANSKAYA, V.A., red.; ANTONOVA, N.M., tekhn. red.

[Problems of viticulture and wine making; abstracts for work for 1959-1960] Voprosy vinogradarstva i vinodeliia; sbornik referatov nauchnykh rabot za 1959-1960 gody. Moskva, Sel'khozizdat, 1962. 363 p. (MIRA 15:7)

1. Yalta. Vsesoyuznyy nauchno-issledovatel'skiy institut vinodeliya i vinogradarstva "Magarach."
(Viticulture) (Wine and wine making)

DUBYNIN, N.G.; IVANOVA, L.T.; SKVORTSOV, A.G.

Breaking off the ore through deep vertical boreholes. Trudy Inst.gor.dela Sib.otd.AN SSSR no.2:167-174 '59.
(MIRA 13:5)

(Mining engineering)

SKVORTSOV, A.G.; KROPOTOV, V.A.

Prevent sudden inflows of water. Bezop. truda v prom. 8 no.11: 11-12 N '64. (MIRA 18:2)

1. Nachal'nik shakhty rudnika "Tashtagol" (for Skvortsov).
2. Sibirskiy metallurgicheskiy institut (for Kropotov).

SKVORTSOV, A.I.; STREKOTIN, B.I.

Organization of pyoderma control on state farms and at the machine tractor stations in Stalingrad Province. Vest.ven. i derm. no.2: 16-20 Mr-Ap '55. (MLRA 8:5)

1. Iz Stalingradskogo oblastnogo kozhno-venerologicheskogo dispansera (glavnyy vrach zasluzhennyy RSFSR A.I. Skvortsov, konsul'tant prof. M.F. Bril').

(PYODERMA, prevention and control, in Russia in rural workers)
(RURAL CONDITIONS, prev. of pyoderma in Russia in rural workers)

SKVORTSOV, A. K.

"Vegetative Reproduction of Firs," Priroda, No. 10, 1948.

SKVORTSOV, A.K.

27667 O rastitel'nosti reliktovogo. torfyanogo bo-otablia G yepifani. byulleten'mosk. O-va ispytateley prirody. Otd.Biol., 1949, Vyp. 4, s.101-104. Bibliogr: 7 nazv.

SO: Knizhnaya Letopis, Vol. 1, 1955

SKVORTSOV, A.K.

New species of touch-me-not from the Ural. Biul.MOIP Otd.biol. 58 no.4:59-60 '53. (MLRA 6:11)

(Ural--Touch-me-nots) (Touch-me-nots--Ural)

SEVORTSOV, A.K.

Willows of Central Russia in the dormant state. Biul. MOIP. Otd. biol. 60 no.3:115-127 My-Je '55. (MLRA 8:9)
(Willows) (Dormancy (Plants))

SKVORTSOV, A.K.

Materials on the morphology and systematics of the willow family. Report no.2: A new willow species from the Eastern Sayan Mountains. Biul. MOIP. Otd. biol. 61 no.1:76-78 Ja-F '56. (MLRA 9:6)

(SAYAN MOUNTAINS,--WILLOWS)

SKVORTSOV, A.K.

Materials on the morphology and systematics of the willow family. Bot. mat. Gerb. 18:34-47 '57. (MIRA 10:6)
(Willows)

SKVORTSOV, A.K.

Recent data on the distribution of some rare and interesting plants in Moscow Province. Nauch.dokl.vys.shkoly; biol.nauki no.3:164-167 '59. (MIRA 12:10)

1. Rekomendovana Botanicheskim sadom Moskovskogo gosudarstvennogo unviersiteta im. M.V.Lomonosova.
(Moscow Province--Botany)

SKVORTSOV, A.K.

Materials on morphology and systematics of the willow family.
Bot.mat.Gerb. 19:83-88 '59. (MIRA 12:8)
(Willows)

SKVORTSOV, A.K.

Recent finds of plants in the Denezhkin Kamen' area (Northern Urals). Bot.mat.Gerb. 19:558-571 '59. (MIRA 12:8)
(Denezhkin Kamen' region--Botany)

SKVORTSOV, A.K.

Two rare grasses in the flora of central Russia. Nauch.dokl.vys. shkoly; biol.nauki no.2:116-120 '60. (MIRA 13:4)

1. Rekomendovana botanicheskim sadom Moskovskogo gosudarstvennogo universiteta im M.V. Lomonosova.
(GRASSES)

SKVORTSOV, A.K.

Species of the genus Ramischia. Vest.Mosk.un.Ser. 6: Biol., pochv. 15 no.1:47-53 '60. (MIRA 13:8)

1. Botanicheskiy sad Moskovskogo universiteta.
(Ramischia)

SKVORTSOV, A.K.

Materials on the morphology and systematics of the willow family. Bot.mat.Gerb. 20:68-89 '60. (MIRA 13:7)
(Turkmenistan--Willows)
(Soviet Far East--Willows)

SKVORTSOV, A.K.

Festuca longifolia Thuill. as a new grass species in the flora of Central Russia. Biul. MOIP, Otd. biol. 65 no.5:75-80 S-O '60. (MIRA 13:12)

(FESCUE GRASS)

SKVORTSOV, A.K.

Materials on the morphology and taxonomy of willows. Report No.9.
Bot. mat. Gerb. 21:83-92 '61. (MIRA 14:10)
(Siberia--Willows)

SKVORTSOV, A.K.

Some recent data on the flora of Smolensk and Kaluga Provinces. (MIRA 14.10)
Bot. mat. Gerb. 21:438-450 '61.
(Smolensk Province--Botany)
(Kaluga Province--Botany)

SKVORTSOV, A.K.

Collection of willow varieties in the Botanical Garden of the Moscow State University. Biul. Glav. bot. sada no.40:9-16 '61. (MIRA 14:10)

1. Botanicheskiy sad Moskovskogo gosudarstvennogo universiteta. [illegible] Lavrenova.
(Moscow--Willows--Varieties)

SKVORTSOV, A.K.

I.R.Forster's expedition to the lower Volga Valley in 1765. Bot. zhur. 46 no.1:151-154 Ja '61. (MIRA 14:3)

1. Botanicheskiy sad Moskovskogo gosudarstvennogo universiteta.
(Forster, Johann Reinhold, 1729-1798) (Volga Valley--Botany)

SKVORTSOV, A.K.

Willows of the section Phylicifoliae Dumort. Biul. MOIP. Otd. biol. 66 no.4:26-33 Jl-Ag '61. (MIRA 14:7)
(WILLOWS)

SKVORTSOV, A.K. (Moskva)

In memory of Mikhail Ivanovich Nazarov; on the 20th anniversary of his death. Bot.zhur. 48 no.2:302-306 F '63. (MIRA 16:4)
(Nazarov, Mikhail Ivanovich, 1882-1942)

SKVORTSOV, A. K.

Nina Aleksandrovna Bazilevskaia; on her 60th birthday and the 40th anniversary of her scientific work. Bot. zhur. 48 no.3: 465-466 Mr '63. (MIRA 16:4)

1. Botanicheskiy sad Moskovskogo gosudarstvennogo universiteta.

(Bazilevskaia, Nina Aleksandrovna, 1902-)

REBRISTAYA, O.V.; SKVORTSOV, A.K.; TOLMACHEV, A.I.; TSVELEV, N.N.; YURTSEV, B.A.

[Arctic flora of the U.S.S.R.; a critical survey of vascular plants found in the Arctic regions of the U.S.S.R.] Arkticheskaia flora SSSR; kriticheskii obzor sosudistykh rastenii, vstrechaiushchikhsia v arkticheskikh raionakh SSSR. Moskva, Nauka. No.2. [Family Gramineae] Semeistvo Gramineae. 1964. 272 p. (MIRA 17:10)

SKVORTSOV, A.K.

Atlas of the geographical distribution of plants on the British Isles. Biul. MOIP. Otd. biol. 68 no.3:145-147 My-Je '63. (MIRA 17:8)

SKVORTSOV, A.K.

Botanical institutions of the German Democratic Republic.
Bot. zhur. 50 no.12:1783-1787 D '65. (MIRA 19:2)

1. Moskovskiy gosudarstvennyy universitet.

SKVORTSOV, A. K. PA 21T83

USSR/Medicine - Histology Jan 1947
Medicine - Fish

"Argentophil Fiber in the Spleen of Bony Fishes," A. K. Skvortsov, 4 pp

"Dok Ak Nauk SSSR" Vol LV, No 3

Presented by L. A. Orbeli, Institute of Cytology, Histology and Embryology of the Academy of Sciences of the USSR, 16 Jul 46. Experiments were conducted on Cypriniformes, Perciformes and Esociformes. This field is still mostly unexplored.

21T83

SKVORTSOV, A. K.

PA 51T40

USSR/Medicine - Fish
Medicine - Anatomy

21 Mar 1948

"Microscopic Anatomy of the Spleen of Chondral Ganoids," A. K. Skvortsov, Inst Cytology, Histology, and Embryol, Acad Sci USSR, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 9

Very little work published on histological structure of the spleen of chondral ganoids. Presents material collected as result of studies on the spleen of Acipenser guldenstadti and of Acipenser stellatus, caught in the Volga River delta in spring. Submitted by Academician L. A. Orbeli, 29 Jan 1948.

51T40

PA 150T46

SKVORTSOV, A. K.

USSR/Medicine - Cells, Morphology
Animal Morphology

21 Jul 49

"Data on the Comparative Morphology of Fatty Cells," A. K. Skvortsov, Inst of Animal Morph imeni A. N. Severtsov, Acad Sci USSR, 3½ pp

"Dok Ak Nauk SSSR" Vol LXVII, No 3

Study of morphology of fatty cells in various representatives of the order of rodents (of suborder Simplicidentata). Data shows that fatty cells in animals of the Simplicidentata group are of a considerable variety expressing histologically the evolution of this group. Gives illustrations of fatty cells. Submitted by K. I. Skryabin 30 May 49.

150T46

SKVORTSOV, A.K.

POPOVA, N.V.; SMITTEN, N.A.; SKVORTSOV, A.K.

Morphology of areolar connective tissue and blood in early-maturing and late-maturing cattle. Izv. AN SSSR. Ser. biol. no.6:72-86 N-D '54. (MLRA 8:3)

1. Institut morfologii zhivotnykh im. A.N.Severtsova Akademii nauk SSSR.

(BLOOD,
morphol. in cattle)
(CONNECTIVE TISSUE,
morphol. in cattle)
(CATTLE,
blood & connective tissue morphol.)

SKVORTSOV, A. M. Cand. Tech. Sci.

Dissertation: "Determination of Effective Heads During Natural Circulation of Various Tubstances in Vertical Unheated Pipe."

21 Apr. 49

Power Engineering Inst

imeni Acad. C. M. Krzhizhanvskiy, Acad. Sci. USSR

SO Vechernyaya Moskva
Sum 71

Skvortsov, A.M.

SUBJECT: USSR/Mining

AUTHORS: Koybash, V.A. and Skvortsov, A.M.

TITLE: Mining of Chalcopyrite Deposit "Imeni 19th Party Congress" (Razrabotka mednokolchedannogo mestorozhdeniya imeni 19 parts"yezda)

PERIODICAL: Gornyy Zhurnal, 1957, # 10, pp 7-11 (USSR)

ABSTRACT: Chalcopyrite deposits in the eastern slope of the South Urals were discovered in 1952. The average copper content is about 6%, however, in some sections it averages 38%. Admixtures of lead, zinc and others were detected in the ore.

In 1956, the "Mezhozernyy" mine was established and was incorporated into the Uchaly Mining Concentration Combine. The mine will start production by the end of 1957.

Presently, only the south-eastern deposit, one of three others, is being exploited. The ore vein is located in the upper level of Middle-Devonian rocks. The thickness of quarternary layers varies between 40 and 70 m. In individual places, quarternary layers cover directly the 50 to 60 m thick ore body whose run was traced for 500 m in the south-eastern section. The coppe

Card 1/3

TITLE: Mining of Chalcopyrite Deposit "Imeni 19th Party Congress" (Razrabotka mednokolchedannogo mestorozhdeniya imeni 19 parts'yezda)

content decreases with depth.

The south-eastern section is located in the vicinity of the swamped valley of the Uzel'ga River. Drying the swamps by means of drainage canals does not present any difficulties but underground waters complicate the situation. In the area of the deposit two water-bearing strata were discovered. According to the project of the "Unipromed'" Institute, the level of underground pressure waters must be reduced by pumping water from 120 m deep wells located beyond the boundaries of the open pit at intervals of 100 m.

The deposit is exploited by the strip mining with dividing the open pit into 2 sections. The stripping coefficient is 4.2 m^3/ton. The projected height of one bench is 10 m. Slope angles are 40° for loose rocks and 55° for dense rocks. The final pit depth, according to the project, will be 100 m.

The removal of the overburden is performed by means of 3-m^3 excavators of the "СЭ-3" type. The operation proceeds unsatisfactorily due to very unfavorable hydrogeological conditions,

127-10-

TITLE: Mining of Chalcopyrite Deposit "[illegible]eni 19th Party Congress" (Razrabotka [illegible]nokolchedannogo mestorozhdeniya imeni 19 parts'yezda)

and moreover, it was made possible only after employing steel mats, etc.

It is concluded that the height of the benches should not be made more than 7 to 8 m to avoid the use of explosives.

The article contains 2 photos, 1 geologic cross section and 4 figures.

ASSOCIATION: Uchaly Mining Concentration Combine (Uchalinskiy gorno-obogatitel'nyy Kombinat)

PRESENTED BY:

SUBMITTED: No date indicated

AVAILABLE: At the Library of Congress.

Card 3/3

18(5) SOV/128-59-8-21/29

AUTHOR: Vostrikov, S.M., Sigov, I.I., and Skvortsov, A.M., Engineers

TITLE: Inverted Conical Bunker for Molding Sand

PERIODICAL: Liteynoye proizvodstvo, 1959, Nr 8, p 38 (USSR)

ABSTRACT: In the steel casting department of the Leningrad Kirov plant, an inverted conical bunker for molding sand has been erected. The form of the bunker enables improved emptying. There is 1 drawing.

Card 1/1

PTITSYN, O.B.; SKVORTSOV, A.M.

Theory of helix-coil transitions in biopolymers. Report No.5. Method of determining the cooperation of helix-coil transition in polypeptide chains by changing macromolecule size in the transition region. Biofizika 10 no.6:909-917 '65.

(MIRA 19:1)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR, Leningrad, i Kafedra fiziki polimerov Leningradskogo gosudarstvennogo universiteta imeni Zhdanova. Submitted February 27, 1965.

ACC NR: AP6025661 (A) SOURCE CODE: UR/0413/66/000/013/0126/0127

INVENTOR: Venediktov, V. A.; Vasil'yev, Yu. A.; Popov, N. I.; Markelov, Ye. V.; Veynblat, M. Kh.; D'yakov, A. P.; Shishakov, K. I.; Yusim, L. Ya.; Skvortsov, A. M.; Kireyev, Yu. A.; Guzanov, G. N.; Gerasimovich, G. G.

ORG: None

TITLE: A fluid device for damping torsional vibrations. Class 47, No. 183539 [announced by the Turbine Motor Plant (Turbomotornyy zavod)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 126-127

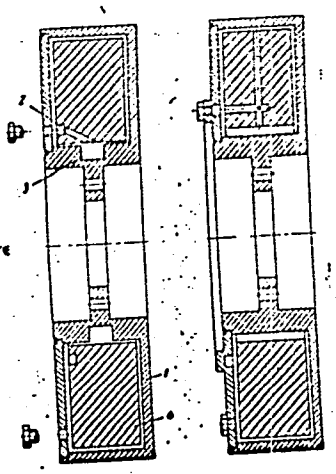
TOPIC TAGS: vibration damping, hydraulic device, torsional vibration

ABSTRACT: This Author's Certificate introduces a fluid device for damping torsional vibrations. The unit consists of a housing with a hole for fluid delivery and a movable annular disc with a compensating cavity set inside the housing. The installation is designed for more reliable and simpler filling of the unit with fluid by providing the faces of the disc or the internal surface of the housing opposite the hole for fluid delivery with at least one annular groove connected to the compensating cavity by channels in the disc body.

UDC: 621-752.2

Card 1/2

ACC NR: AP6025661



1—housing
2—annular groove
3—compensating cavity
4—disc

SUB CODE: 13,20/SUBM DATE: 28Apr65

Card 2/2

L 43883-66 EWT(d)/EWP(1) IJP(c) BB/GG

ACC NR: AP6030573 SOURCE CODE: UR/0413/66/000/016/0055/0055

INVENTOR: Kreynin, S. I.; Lashevskiy, R. A.; Maksimov, M. N.; Rabkina, N. V.; Khavkin, V. Ye.; Skvortsov, A. M.; Norkin, L. M.

ORG: none

TITLE: Memory device. Class 21, No. 184935

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 55

TOPIC TAGS: computer memory, computer storage device

ABSTRACT: This Author Certificate introduces a word-organized memory consisting of multiaperture ferrite plates, and a magnetic decoder with transformers using multiaperture ferrite plates (see Fig. 1). To increase both the speed and capacity

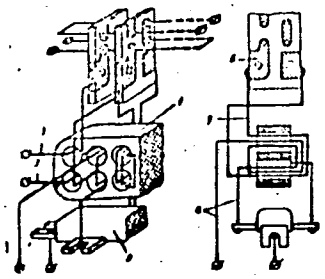


Fig. 1. Memory device

1 - Ferrite plate; 2 - diode matrix; 3 - bias winding; 4 - excitation winding; 5 - output winding; 6 - printed winding.

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and to reduce the required power, the magnetic decoder contains a diode matrix of integral planar structures with a number of p-n junctions equal to the number of addresses in the device. Orig. art. has: 1 figure. [JR]

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Card 2/2 mjs

KUDRYASHOV, V. V., kand. tekhn. nauk; SKVORTSOV, A. N., gornyy inzh.

Internal water tamping of holes as a means of dust control. (MIRA 15:10)
Ugol' 37 no.10:46-48 O '62.

1. Institut gornogo dela im. A. A. Skochinskogo.

(Mine dusts)

SKVORTSOV, A.N.

Designers should receive attention and support. Radio no.6:3 Je '65.
(MIRA 18:10)

1. Zamestitel' predsedatelya TSentral'nogo komiteta Vsesoyuznogo dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu SSSR.

KUDRYASHOV, V.V., kand. tekhn.nauk; SKVORTSOV, A.N.

Using water to control dust at negative temperatures. Bor'ba s sil. 5:28-37 '62. (MIRA 16:5)

1. Institut gornogo dela imeni A.A.Skochinskogo.
(Mine dusts—Prevention)