S/179/63/000/001/026/031
E081/E135

AUTHOR: Semykina, T.D. (Voronezh)

TITLE: Triaxial extension of an elasto-plastic space
           weakened by a spherical cavity

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye
           tekhnicheskikh nauk. Mekhanika i mashinostroyeniye,
           no.1, 1963, 173-177

TEXT: The stress distribution in the space is determined from
the equilibrium equations, the Tresca- St. Venant plasticity
conditions, the boundary conditions, and the conjugation
conditions at the boundary of the elastic and plastic regions.
A solution is obtained in terms of associated Legendre polynomials
by taking the stresses in a hollow sphere under hydrostatic
pressure as the zero order approximation. Using the small
parameter method, the first order approximation to the stresses in
the plastic region is obtained, and a similar method is applied to
obtain the stresses in the elastic region. As an example, the
elasto-plastic stress state is determined in a space containing a
spherical cavity and subjected to mutually perpendicular forces

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Triaxial extension of an ...

P_1, P_2 and P_3 at infinity.
There is 1 figure.

SUBMITTED: September 14, 1962

S/179/63/000/001/026/031
E081/E135

Card 2/2

SHEMYAKIN, P.N.; SEMYAKINA, A.F.

Effect of Co^{60} irradiation of sugar beet roots on their storage
quality and on seed yield. Sakh. prom. 32 no.4:52-55 Ap '58.

(MIRA 11:6)

1.TSentral'nyy nauchno-issledovatel'skiy institut sakharnoy
promyshlennosti.
            (Sugar beets) (Cobalt isotopes)

SESTAKOVA, I. I., BOROVAYA, M. S. and GAVRILOV, K. A.

"The Polarographic Method of Detecting Metals in Lubricants", p 139, in the Monograph "Investigation and Use of Petroleum Products", edited by N. G. Puchkov, Gostoptekhizdat, Moscow-Leningrad, 1950.

SEM'YAN, A.I. [Sem"ian, O.I.]

Natural transformation of river flood discharge and its determination. Geog. zbir. no.6:130-135 '62.   (MIRA 15:9)

(Runoff)

SEM"YAN, O.I.

Hydrograph computation for noteworthy spring floods of the Dnieper
River near Kiev with channel storage calculations. Visti.
Inst. gidrol. i gidr. AN URSR 17:130-138 '60. (MIRA 14:8)
(Dnieper River—Floods)

SEM"YAN, O.I.

Effect of irregular velocity distribution in the stream on the transformation of flood waves. Visti Inst. gidrol. i gidr.
AN URSR 17:139-143 '60.   (MIRA 14:8)
                    (Floods)

SEMYANISTYY, V.I.

Parabolic congruences of straight lines. Trudy Sem. po vekt. i
tenz. anal. no.10:259-268 '56.   (MIRA 10:3)
                    (Congruences (Geometry))

SEMYANISTYY, V. I.

Groups of transformations associated with parabolic linear
congruences. Uch. zap. GGPI no.8:42-56 '58. (MIRA 13:8)
(Transformations (Mathematics))
(Congruences (Geogetry))

SEMYANISTYY, V.I.

Parabolic linear congruences and dual numbers. Uch. zap. GGPI
no.8:57-64 '58.   (MIRA 13:8)
            (Congruences (Geometry))

BRYKOV, A. I., SEMYANISTYY, V. I.

Concerning: N.N. Nikitin and A.I. Fetisov's new geometry textbook
for grades six through nine, published in 1956. Uch. zap. GGPI
no.8:99-106 '58.   (MIRA 13:8)
          (Geometry--Textbooks)
          (Nikitin, N.N.) (Fetisov, A.I.)

85938

S/020/60/134/003/028/033XX
C111/ C 333

16.4600

AUTHOR: Semyanistyy, V. I.

TITLE: On Certain Integral Tansformations in Euclidean Space

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 3,
pp. 536-539

TEXT: The author introduces four integral transformations with a generalized kernel in the n-dimensional Euclidean space R_n and in the space $\hat{R}_n$ of the hyperplanes of the R_n. The notations are taken from (Ref. 1,2).

Let the space Ψ consist of the infinitely differentiable functions $\psi(x)$ which vanish in the origin of coordinates and decrease at infinity more rapidly than an arbitrary power of r^{-1} together with all their derivatives. The topology is introduced in Ψ by

(1) $\|\psi\|_p = \text{l. u. b.}_{\substack{x \\ q \leq p}} (r^{-p}+r^p) \left| D^q \psi(x) \right|$, $p=0,1,2,\ldots,$

$r = \sqrt{x_1^2 + \ldots + y_n^2}$,

where D^q is a differential operator of order q with respect to

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C 111/ C 333

On Certain Integral Transformations in Euclidean Space

arbitrary arguments. With this topology ψ becomes a complete denumerable normed space of the type $K\{M_p\}$, where $M_p = r^{-p} + r^p$, $M_o(0) = \infty$. From $\psi(x) \in \psi$ it follows $r^\lambda \psi \in \psi$ The functional of the type r^λ is a multiplier in the space ψ' of the generalized functions over ψ. Assume that $\phi = F^{-1}[\psi]$ consists of the functions $\varphi(x)$ for which $\psi(x) \in \psi$ is a Fourier transform. ϕ consists of all infinitely differentiable functions which decrease at infinity more rapidly than any power of r^{-1} together with their derivatives and are orthogonal to all polynomials. ϕ is a complete space with differentiable translations. According to (Ref.2) the functional $R_\lambda = F^{-1}[r^\lambda]$ is an involutor in the space ϕ' of the generalized functions over ϕ . I. e.: in ϕ' a convolution operation with the generalized function $R_\lambda : f \to R_\lambda * f$ is defined. It is

(2) $R_\lambda * R_\mu = R_{\lambda+\mu}$, $R_o = F^{-1}[1] = \delta(x)$, $R_\lambda * R_{-\lambda} =$
                    $= R_o = \delta(x)$.
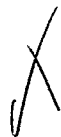
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On Certain Integral Transformations in Euclidean Space

(2) shows that the operators $R_\lambda*$ form an additive group of transformations of the functions from ϕ_λ' with respect to the complex parameter λ . The Laplace operator, its powers and the operators inverse to it belong to the group $R_\lambda*$. It is

$$(3) \quad R_\lambda(x) = \begin{cases} \dfrac{2^\lambda \, \Gamma(\frac{\lambda+n}{2})}{\pi^{n/2} \, \Gamma(-\frac{\lambda}{2})} \; q^{-\lambda-n} & \text{for } \lambda \neq 0,2,\dots \text{ and } \lambda \neq n,-n-2,\dots \\[2mm] (-\Delta)^k \, \delta(x) & \text{for } \lambda = 2k, \; k = 0,1,\dots \\[2mm] \dfrac{(-1)^k}{2^{n+2k-1} \, \pi^{n/2} \, \Gamma(\frac{n}{2}+k)k!} \; r^{2k}\ln r & \text{for } \lambda = -n-2k, \; k = 0,1,\dots \end{cases}$$

where Δ is the Laplace operator and the generalized functions $r^{-\lambda-n}$ and $r^{2k}\ln r$ on ϕ satisfy the same formulas as in the space k of the finite infinitely differentiable functions (see (Ref.1)).

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On Certain Integral Transformations in Euclidean Space

The transformations of the second type transform the functions of the hyperplanes into each other and form a group which is analogous to the transformation group of the first type. The transformations of the third and fourth type also depend on Λ and are pairwise dual, they transform functions of the points into functions of the hyperplanes, and inversely.

These last transformations are used in order to write explicitly the solution of the Radon problem (determination of the function from known integrals over the hyperplanes).

There are 2 Soviet references.

PRESENTED: May 9, 1960, by J. G. Petrovskiy, Academician

SUBMITTED: May 7, 1960

Card 4/4

SEMYANISTYY, V.I.

Some integral transformations in Euclidean space. Dokl. AN SSSR
134 no.3:536-539 S '60.   (MIRA 13:9)

1. Predstavleno akad. I.G. Petrovskim.
                  (Functional analysis)

SEMYANISTYY, V.I.

Homogeneous functions and some problems of integral geometry in the spaces of constant curvature. Dokl. AN SSSR 136 no.2:288-291 '61.
(MIRA 14:1)

1. Predstavleno akademikom I.G. Petrovskim.
(Geometry)

SEMYANISTYY, V.I.

Some integral transformations and integral geometry in elliptic space. Trudy Sem.po vekt.i tenz.anal. no.12:397-441 '63.
(MIRA 16:6)

(Geometry, Non-Euclidean)   (Transformations (Mathematics))

AUTHORS: Semyankin, F.V., Kontsevich, A.I., Khokhlov, A.D.

TITLE: Measuring the set noise of microphones

PERIODICAL: "Tekhnika kino i televideniya", no.4, 1963, 35 - 38

TEXT: The authors give a description and a block-diagram of a device
by means of which it is possible to carry out direct measurements of the
signal-to-noise ratio of microphones taking into account the properties of
hearing. The device has been developed by the Leningradskiy institut kino-
inzhenerov (Leningrad Institute of Motion Picture Engineers) and uses the
frequency characteristics of hearing, the practically obtained curves and
its own frequency characteristics for noise measurements. Comparative
measuring data of the signal-to-noise ratio of different types of micro-
phones are presented. There are 3 figures and 1 table.

ASSOCIATION: Leningradskiy institut kinoinzhenerov (Leningrad Institute of
             of Motion Picture Engineers)

Card 1/1

SEMYANNIKOV, I.Ye.

Unnecessary links in the administration structure. Tekst.prom. 18
no.4:4-5 Ap '58.   (MIRA 11:4)
      (Textile industry) (Industrial management)

SEMYANNIKOV, I.Ye., inzh.

Simplifying the procurement system for cotton gins. Tekst.
prom. 19 no.10:73-76 O '59.   (MIRA 13:1)
        (Cotton gins and ginning)

AUTHOR: Semyannikov, V., Deputy School Director   SOV/27-58-12-13/23

TITLE: Mechanizers of Coal (Mekhanizatory uglya)

PERIODICAL: Professional'no-tekhnicheskoye obrazovaniye, 1958, Nr 12,
               p 18 (USSR)

ABSTRACT: The author mentions the great tasks assigned to the nation
               in the theses of N.S. Khrushchev's report at the 21st Congress
               of the KPSS. To carry out this huge program, workmen are re-
               quired who are capable in modern engineering. Mining School
               Nr 3 of the Stalino Oblast' is endeavoring to train such
               workmen. The author lists some of the equipment used by the
               school for practical training and emphasizes the good condi-
               tions prevailing in the workshops.
               There are 3 photos.

ASSOCIATION: Gornopromyshlennoye uchilishche Nr 3 Stalinskoy oblasti
               (Mining School Nr 3 of the Stalino Oblast')

Card 1/1

L 6390-66   EWT(m)/EPF(c)/EWP(j)   RM

ACC NR: AP5026740   SOURCE CODE: UR/0286/65/000/017/0016/0016

INVENTOR: Lel'chuk, S. L.; Ivanova, N. A.; Vabel', Ya. I. (Deceased); Agafonova, M. I.; Frangulyan, G. D.; Semyannikova, A. M.

ORG: none

TITLE: A method for producing dimethyldichlorosilane. Class 12, No. 174185

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 17, 1965, 16

TOPIC TAGS: silane, dimethyldichlorosilane, silicone

ABSTRACT: This Author's Certificate introduces a method for producing dimethyldichlorosilane by interacting methyl chloride with a silicon-copper alloy treated with a cadmium compound. The product yield is increased by using cadmium chloride in the amount of 4.3% of the weight of the alloy and subjecting the processed alloy to thermal treatment at 180°C.

UDC: 547.419.5.07

SUB CODE: GC,OC/   SUBM DATE: 27Oct62/   ORIG REF: 000/   OTH REF: 000

Card 1/1

SEMYANNOV, A., inzh.

Ways of reducing the cost of construction and operation of storage bins for potatoes. Sov. torg. 33 no.7:23-24 Jl '59.

(MIRA 12:9)

(Potatoes—Storage)

SEM'YANCV, A.N., inzh.

Pneumatic frame for assembling sectional wooden constructions.
Der. prom. 12 no.9:22-23 S '63.   (MIRA 16:10)

1. Leningradskiy vagonostroitel'nyy zavod im. I.Ye.Yegorova.

SEM'YANOV, A.N., inzh.

Universal joiner's bench for assembling frame structures. Gor. khoz.
Mosk. 37 no.11:36-37 N '63.   (MIRA 17:1)

1. Leningradskiy vagonostroitel'nyy zavod imeni I.Ye. Yegorova.

SURABYAN, YE., SEM'YANOV, A. V.

Boilers

Washing the heating surfaces of boiler units in operation.   Za ekon. top.9 n9.4:33-34 Ap '52.

SEM'YANOV, V., aspirant

Preservation of ladybirds in the chemical treatment of orchards.
Zashch. rast. ot vred. i bol. 10 no.6:20-21 '65.   (MIRA 18:7)

1. Leningradskiy sovet narodnogo khozyaystva.

SEMYANOVSKIY, F., starshiy leytenant

In the sector of "contamination." Starsh.-serzh. no.10:20 O
'61.   (MIRA 15:2)
(Chemical warfare--Safety measures) (Radioactivity--Safety measures)

SEMYANOVSKIY, F., starshiy leytenant

On the way to the congress of youth. Starsh.-serzh. no.3:4-5
Mr '62.   (MIRA 15:4)

1. Vneshtatnyy korrespondent zhurnala "Starshina-serzhant".
   (Communist Youth League)   (Military education)

1. SEMYANOVSKIY, V.

2. USSR (600)

4. Moving-Picture Projection

7. Determination of the type of current.
   Kinomekhanik. No.9, 1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

1. SEMYANOVSKIY, V.

2. USSR (600)

4. Potentiometer

7. Potentiometer in the chain of a sound recorder. Kinomekhanik No. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, __February__ 1953. Unclassified.

SEMYANOVSKIY, V., kinomekhanik (Uzin, Kiyevskaya oblast').

Elimination of oil leaks in projectors. Kinomekhanik no.11:35 N '53.

(MLRA 6:11)

(Moving-picture projectors)

SEMYANOVSKIY, V., starshiy leytenant

Ancestors, fathers, soldiers of our days. Starsh.-serzh. no.9:
20 S '62.   (MIRA 15:11)
                    (Borodino, Battle of, 1812)
                    (Borodino—World War, 1939-1945)

SOV/146-1-1-16/22

AUTHOR: Semyashkin, E.M., Postgraduate Student

TITLE: Determination of the Radiation Capacity Factor of
               Surfaces on the Basis of Regular Heat Process Theory
               (Opredeleniye koeffitsiyenta lucheispuskatel'noy
               sposobnosti poverkhnostey na osnove teorii regulyar-
               nogo rezhima)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy -
               Priborostroyeniye, 1958, N: 1, pp 116-122 (USSR)

ABSTRACT: Several methods of determining radiation capacity
               factors give good results but require complex equipment
               and highly qualified handling. G.M.Kondrat'yev worked
               out a comparative method on the theory of the regular
               heat process but it needs considerable improvement.
               The paper first explains the idea of this method, then
               describes the experiment as follows: Two smallish
               metal objects identical in form and dimension must be
               selected, one of which has a thin coating of material
               with known radiation capacity. Their rate of cooling

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SOV/148-1-1-18/22

. Determination of the Radiation Capacity Factor of Surfaces on the
Basis of Regular Heat Process Theory

must be measured and, given their heat capacities, the
unknown radiation surface capacity of the second object
can be ascertained according to the proposed formula.
The test equipment is described with volumetric tech-
nique and the processing of the test material; further
the author describes the selection of time intervals
between readings, when determining the cooling curves.
The results obtained make it possible to select the
optimum time interval when measuring rates of cooling
under conditions of an intense thermal exchange, in
cases where only 2 points can be fixed during the
entire cooling period. There are 3 graphs, 1 circuit
diagram, 1 figure and 2 Soviet references.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki
(Leningrad Institute of Fine Mechanics and Optics)

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~~24(8)~~ 24,7600

66194

SOV/146-59-2-21/23

AUTHOR: Semyashkin, E.M., Engineer

TITLE: Research of True Heat Capacity of Materials by Method of Regular Conditions

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - priborostroyeniye, 1959, Nr 2, pp 139-146 (USSR)

ABSTRACT: Notwithstanding its simplicity and quickness, the method of true heat capacity determination under regular conditions has a very limited field of application, this being due to the instability of results obtained, on the one hand, and the possibility of heat capacity determination only at the temperature of the surrounding medium, on the other hand. The method of determining the regular cooling rate m depending on the temperature pressure ϑ allows elimination of these shortcomings and applying the calorimeter method for establishing the temperature dependence of true heat-capacity of materials. Considering the cooling off of two cylinders one of which is fashioned from a material with thermal pro-

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Research of True Heat Capacity of Materials by Method of Regular
Conditions

perties known, and the other is a thin-walled shell
filled with a substance the specific heat of which
has to be determined, the expression for the full
heat capacity of researched material is $C_x = c_x P_x =$

$= \Psi_x (\frac{m_N}{m_x} C_n - C^1)$, where c_x is specific heat of re-

searched material; C_n and C^1 - are respectively
full heat capacities of the standard gauge and that
of the thin-walled cylinder; m_N and m_x - cooling
rates of the gauge and that of the cylinder contain-
ing the powder; P_x - weight of researched material;
Ψ_x - criterion characterizing the field temperature
unevenness in the powder. The above formula is valid
under the assumption that the outside dimensions and
the form of cylinders are the same, that the radia-
tion coefficient of their outside surfaces is one
and the same, and that both cylinders are cooled off
under the same conditions. At small values of the

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Research of True Heat Capacity of Materials by Method of Regular
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heat pressure, it is possible to realize such condi-
tions when ψ_x is equal to 1. Consequently, in
order to compute c_x, it is necessary to determine
the values m_N and m_x. Heat capacities C_n and C^1_n
are determined by multiplication of respective
weights by the specific heat of materials of which
the standard gauge and the hollow cylinder are made.
In Table 1, dependence between H and ψ is given; H
is universal criterion the value of which is expres-
sed by formula

$$H = \frac{\alpha}{\lambda} \cdot \frac{ks}{v} ,$$

where k – is coeffi-
cient of the solid's form; λ – coefficient of so-
lid's heat conductivity; v – volume of the solid;
α – its temperature conductivity. The author de-
scribes how the experiment of determining the heat
capacity of armco iron (technically pure iron) was
carried out. The temperature interval was 20^0 to
150^0C. Geometrical parameters of copper microcalori-

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Research of True Heat Capacity of Materials by Method of Regular
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meter were: $d = 12$ mm; $l = 17$ mm; $K_x = 4.80.10^{-6} m^2$;
$d_x = 11.6$ mm; $l_x = 16.6$ mm; $V_x = 1.75.10^{-6} m^3$.
Weights: $P_N = 19.4.10^{-3}$ kg; $P' = 2.07.10^{-3}$ kg;
$P_x = 5.08.10^{-3}$ kg. Dependence graph $m_x = m_x (\delta)$ is
given in Fig 1. Table 2 shows approximate value
C_x of researched material at $\psi_x = 1$; values m_N and
m_x are taken from respective graphs given in Fig 1.
Specific heat of copper C_n is $C_n = 0.0926 + 0.208.10^{-4}$
t; temperature Θ of the medium is $21^{o}C$, consequent-
ly $\delta = t - 21^{o}C$. From Table 2 values C_x, C^1 and λ_x
are taken: $C^1 = 0.20.10^{-3} kcal/^{o}C$; $C_x = 0.62.10^{-3}$
$kcal/^{o}C$; $\lambda_x = 0.25 \ kcal/m.hour^{o}C$. In this case,
$H_x = 0.161 \ m_N c_n$. Recommended by the Kafedra teplo-

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Research of True Heat Capacity of Materials by Method of Regular
Conditions

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vykh i kontrol'no-izmeritel'nykh priborov (Chair of
Thermal- and Control-Measuring Devices). There are 4 graphs,
3 tables and 6 Soviet references.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki
(Leningrad Institute of Precision Mechanics and
Optics)

SUBMITTED: February 14, 1959

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84138
S/058/60/000/007/003/014
A005/A001

17. 4400 2612 only
14.9200

Translation from: Referativnyy zhurnal, Fizika, 1960, No. 7, p. 139, # 16772

AUTHOR: Semyashkin, E. M.

TITLE: On the Choice of Overheating Temperature of a Body at Experiments by the Regular Mode Methods Under Natural Air Convection Conditions

PERIODICAL: Nauchn. tr. Leningr. in-t tochnoy mekhan. i optiki, 1959, No. 37, pp. 39-42

TEXT: A linear correlation between the logarithm of temperature and time must take place, according to the theory, in regular mode operation. However, curved lines are found, as a rule, in the corresponding graphs instead of straight lines when cooling under free air convection conditions. To investigate the causes of this phenomenon, experiments were performed by measuring the heat emission coefficient of a cubic copper chamber with 50-cm edge length and 1-mm wall thickness. It turned out that the heat emission coefficient depends essentially on the overheating magnitude and varies by more than two times when the overheating changes from 1 to 80°C. The curvature of the semilogarithmic grap

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On the Choice of Overheating Temperature of a Body at Experiments by the
Regular Mode Methods Under Natural Air Convection Conditions

graph of cooling is quantitatively explicable in this case by the correlation
mentioned. It is recommended to use larger ($\geqslant 50^\circ$C) differences in temperature
when operating with the regular cooling method under the conditions of free
convection in air, because the dependence of the heat emission coefficient on
the temperature difference shows a maximum for small differences.

L. P. Filippov

Translator's note: This is the full translation of the original Russian
abstract.

Card 2/2

SEMYASHKIN, E. M. Cand Tech Sci -- "Measurment of the coefficient of heat

emission, heat capacity, and ~~multiplying radient emicsivity~~ *radiating power* by methods of

regular moding." Len, 1960 (Min of Higher and Secondary Specialized Education

RSFSR. Len Technological Inst of Refrigeration Industry). (KL, 1-61, 197)

-241-

32972
S/146/61/004/006/018/020
D221/D301

2b.5200

AUTHOR: Semyashkin, E. M.

TITLE: Investigating the coefficient of heat transfer of li-
            mited cylinders, in conditions of free convection

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priborostro-
            yeniye, v. 4, no. 6, 1961, 140-150

TEXT: A description is given of investigations for obtaining a
general empirical equation of the convective component in the heat
transfer coefficient α_c, with regard to bounded cylinders cooled
by natural convection. The coefficient of heat transfer is a func-
tion of many parameters, including the diameter of the cylinder
and the ratio of length of diameter $\frac{l}{d}$. The author's method per-

mits calculation within a wide range of temperatures in a short
time. The experiments were carried out at normal pressure in a
chamber with air at rest. The temperature difference between the
surface of specimen and the medium was determined by a thermocouple

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Investigating the coefficient ...   D221/D301

whose e.m.f. was measured by a mirror galvanometer. A transportable
oven was used for heating the specimens, without removing the ther-
mocouple. The accuracy measurements is strongly affected by fixing
and, therefore, special attention was paid to fixing the specimens.
The cooling curve is found directly from the experiment; then the
dependence of the total heat transfer coefficient α on temperature
Θ is determined, the radiative component of α is eliminated and the
graph $\alpha_c = \alpha_c(\Theta)$ remains. The radiative component can be determined
by calculation, if the absorption coefficient of the surface of the
cylinder is known. Experiments have shown that the absorption co-
efficient of the brass surface of the specimens is practically in-
dependent of temperature in the interval $30^\circ C - 140^\circ C$ and is equal
to 0.18. The author gives an analysis of the results, based on the
theory of physical similarity. The relation between the criteria
of similarity and $1/d$ is supposed to be

$$Nu_m \ 1/d = B(GrPr)_m^n \qquad (2)$$

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and Gr and Pr are criteria of Grashoff and Prandtl. The diameter
of cylinder d is chosen as the determining dimension. The graph of
Nu_m l/d = f(GrPr) consists of parallel straight lines and the coef-
ficient n is found as the averaged tangent of inclination of the
lines: n = 0.215. The coefficient B depends on d, l/d and the po-
sition of the specimen. The author gives empirical formulae deduced
from the experimental data for horizontal and vertical cylinders;
the error of these formulae with respect to the data is 3 to 5%.
For the purposes of practical computation, the author expresses the
formulae in terms of 4 quantities and gives a graph of the latter
as functions of d. The formulae for infinitely long cylinders do
not give the dependence of the heat transfer coefficient on l/d
and are not applicable to small cylinders. When l/d $>$5, the Grif-
fith-Davis' formula gives the most accurate results. On the basis
of the theory of analogy the author affirms that the equations ob-
tained are valid also for other gas media if the conditions

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$$3 \text{ mm} < d < 30 \text{ mm}$$
$$1 < 1/d < 5$$
$$23 < (GrPr)_m < 130000$$

(9)

are satisfied. At present, it is assumed that $\alpha = \alpha_0 \sqrt{H/H_0}$ where α_0 is the heat transfer coefficient at normal pressure H_0. From the empirical equations obtained by the author, it is deduced that $\alpha/\alpha_0 = (H/H_0)^{0.43}$. Therefore, the relationship between the coefficient of heat transfer and pressure was investigated between 20 mm Hg and 3 atm. The radiation component of heat transfer in conditions of high pressure was determined from the experiments at normal pressure. The ratios of heat transfer coefficients for different

Card 4/5

32972
S/146/61/004/006/018/020
Investigating the coefficient D221/D301

pressures ($B = \alpha/\alpha_0$) averaged over all experiments are tabulated. The mathematical relationship is looked for in the form $\beta =$ $= (H/H_0)^S$. A logarithmic graph is plotted and the value of S determined from it is 0.43, which coincides with the one deduced from other equations. This article was recommended by the Kafedra teplovykh i kontrol'no-izmeritel'nykh prikorov (Department of Thermal and Control-Measuring Instruments). There are 4 figures, 3 tables and 8 Soviet-bloc references.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki (Leningrad Institute of Precision Mechanics and Optics)

SUBMITTED: March 7, 1961

Card 5/5

2

S/170/62/005/004/013/016
B104/B102

AUTHORS: Begunkova, A. F., Dul'nev, G. N., Platunov, Ye. S.,
Semyashkin, E. M., Cherkasov, V. N., Yaryshev, N. A.

TITLE: Normal thermal conditions of bodies of complex shape

PERIODICAL: Inzhenerno-fizicheskiy zhurnal. v. 5, no. 4, 1962,
122 - 126

TEXT: In the "Inzhenerno-fizicheskiy zhurnal", no. 8, 1961, a paper by
G. N. Tret'yachenko and L. V. Kravchuk entitled "Normal thermal conditions
of complex bodies" was published. In this paper, some "fundamental errors"
of the founder of the theory of normal thermal conditons, G. M. Kondrat'yev
and his followers, are pointed out. In the present paper, some assumptions
of the theory set up by Kondrat'yev are explained, and it is shown that the
authors of the paper mentioned misunderstood the term "normal thermal con-
ditions". This is discussed in detail by citing the corresponding passages
of the text and by using the symbols introduced there. There are 8 Soviet
references.

Card 1/2

SEMYKIN, I. N., (Veterinary Surgeon, Pupyansk Raion, Khar'kov Oblast²)

Our observations on the synthomycin action

Veterinariya vol. 38m,no. lo, October 1961, pp. 81-89

BELOUS, M.D., agronom; SEMYKIN, I.Ye.; GROMIYCHUK, P.T., zven'yevaya,
Geroy Sotsialisticheskogo Truda; KAGERMANOV, A.D., brigadir
polevodcheskoy brigady kommunisticheskogo truda

What the participants of the December Plenum of the Central
Committee of the CPSU say. Zemledelie 26 no.1:9-11 Ja'64.
(MIRA 17:5)

1. Predsedatel' kolkhoza "Druzhda" Khmel'nitskogo
proizvodstvennogo upravleniya, Vinnitskoy oblasti (for
Belous). 2. Glavnyy agronom sovkhoza "Kropotkinskiy"
Kavkazskogo proizvodstvennogo upravleniya, Krasnodarskogo
kraya (for Semykin). 3. Kolkhoz imeni XX s"yezda
Kommunisticheskoy partii Sovetskogo Soyuza Ul'yanovskogo
proizvodstvennogo upravleniya, Kirovogradskoy oblasti (for
Gromiychuk). 4. Sovkhoz "Krasnoarmeyskiy" Urus-Marta-
novskogo proizvodstvennogo upravleniya, Checheno-Ingushskoy
ASSR (for Kagermanov).

CHERNENKOV, A.D.; SEMYKIN, K.I.; TOMASHEVSKIY, T.S.

Using tractor-mounted machines and improving technical methods of sugar beet cultivation in the Baltic Sea region. Sakh. prom. 31 no.5:63-67 My '57.

(MIRA 10:6)

1. Vsesoyuznyy institut mekhanizatsii (for Chernenkov). 2. Mezhotnenskaya opytno-selektsionnaya stantsiya (for Semykin and Tomashevskiy).

(Baltic Sea region--Sugar beets)

SEMYKIN, K.I., otv. red.; KORCHENYUK, Ya.T., starshiy nauchnyy sotr.,
red.; GRIGOR'YEV, H.A., kand. sel'khoz. nauk, red.; SUKACHEV,
V.P., red.; BOGDANOVICH, M.V., red.; NIKOLAYCHUK, G.M., red.;
SERDYUK, B.M., red.; KVITKA, S.P., tekhn. red.

[Scientific works of the Veselyy Podol Agricultural Experiment
Station for 1927-1958] Nauchnye trudy Veselopodolianskoi opytno-
selektsionnoi stantsii za 1927-1958 gg. Kiev, Izd-vo Ukrainskoi
akad. sel'khoz. nauk, 1961. 156 p.   (MIRA 15:3)

1. Kiev. Vsesoyuznyy nauchno-issledovatel'skiy institut sakhar-
noy svekly. 2. Zaveduyushchiy otdelom selektsii sakharnoy
svekly Veselopodolyanskoy opytno-selektsionnoy stantsii, Semenov-
skiy rayon, Poltavskaya oblast' (for Sukachev). 3. Zaveduyushchiy
laboratoriyey fitopatologii Veselopodolyanskoy opytno-selektsionnoy
stantsii, Semenovskiy rayon, Poltavskaya oblast' (for Bogdanovich).
4. Zaveduyushchiy laboratoriyey agrokhimii Veselopodolyanskoy
opytno-selektsionnoy stantsii, Semenovskiy rayon, Poltavskaya
oblast' (for Nikolaychuk).
        (Poltava Province--Agricultural experiment stations)
                (Poltava Province--Sugar beets)

SIZOV, Yu.M.; PLATONOV, G.F.; ABDEYEV, M.A.; SEMYKIN, N.G.

Refining and use of cast iron obtained during the smelting of zinc
slags and sinter cake. Trudy Alt. GMNII AN Kazakh. SSR 14:123-128
'63.   (MIRA 16:9)
            (Nonferrous metal industries—By-products)
                    (Cast iron—Metallurgy)

KRASNOV, Nikolay Pavlovich; SEMYKIN, S.F., nauchn. red.

[Finishing of large-panel apartment houses and public
buildings] Otdelka krupnopanel'nykh zhilykh i obshche-
stvennykh zdanii. Moskva, Stroiizdat, 1965. 166 p.
(MIRA 18:12)

MZHACHIKH, K.I.; SEMYKIN, V.D.

Using aluminum alloys in the manufacture of instruments for investigating
wells. Mash. i neft. obor. no.12:24 '64.   (MIRA 18:1)

1. Kuybyshevskiy nauchno-issledovatel'skiy institut neftyanoy promy-
shlennosti.

SEMYKIN, V. I.

"Diseases of agricultural fowl and the measures of the fight against them," Voronezh, Voronezh Oblast Publishing House, 1952, 84 pages with illustrations.

SO: Veterinariya; 30; (3); March 1952; Unclassified.   TABCON

SEMYKIN, Vasiliy Ivanovich; ITUNINA, R.G., red.; SERADZSKAYA, P.G., tekhn.
red.

[Take care of young ducklings] Beregite molodykh utiat. Voronezh,
Voronezhskoe knizhnoe izd-vo, 1960. 26 p.   (MIRA 14:9)
(Ducks—Diseases and pests)

SEMYKINA, T.D. (Voronezh)

Triaxial tension of an elastoplastic space weakened by a spherical
hollow. Izv.AN SSSR.Otd.tekh.nauk.Mekh.i mashinostr. no.1:173-
177 Ja-F '63.   (MIRA 16:2)

(Plasticity)

S/0179/64/000/004/0068/0076

ACCESSION NR: AP4043891

AUTHOR: By*kovtsev, G. I., Semy*kina, T. D.

TITLE: Viscous-plastic flow of round plates and shells of revolution

SOURCE: AN SSSR. Izvestiya. Mekhanika i mashinostroyeniye, no. 4, 1964, 68-76

TOPIC TAGS: limit design, fluidity, plasticity, viscoplastic flow, round plate, shell of revolution, rocket design

ABSTRACT: The authors consider the behavior of viscoplastic shells of revolution for the initial condition of plasticity assumed by Tresk. Usually, the Bingham model is used for such investigations, in which the solid remains rigid until the stressed condition reaches some limit based on the Mises theory. For purposes of simplicity, however, fragmental linear conditions of plasticity can be assumed. The authors state that the relationship between the stress tensor and deformation rate for viscoplastic solids may be plotted by analogy to the theory of flow of strengthened plastic materials. When stresses exist in space the equation of the surface varies as the deformation rate changes:

$$f(\sigma_{ij}, \varepsilon_{ij}) = 0 \tag{1}$$

Considering this equation as the potential of the deformation rate, we obtain:

$$\varepsilon_{ij} = \lambda \frac{\partial f}{\partial \sigma_{ij}} \tag{2}$$

Card 1/5.

ACCESSION NR: AP4043891

These two equations show the relationship between the deformation rate and stress for a viscoplastic solid. One of the following three combinations is taken as the basis of the plastic condition:

$$\max|\sigma_i - \sigma_j| = k + \mu \max|e_\alpha - e_\beta| \tag{3}$$

$$\max|\sigma_i - \sigma_j| = k + 2\mu \max|e_\alpha| \tag{4}$$

$$|(\sigma_i - \mu e_i) - (\sigma_j - \mu e_j)| = k \tag{5}$$

Equations are also given for the stresses in different zones.

(1a) $\sigma_1 = \sigma_2 = k + \mu(2e_1 + e_2)$	(1b) $\sigma_1 = \sigma_2 = k + \mu(2e_2 + e_1)$
(2a) $\sigma_1 = 0, \sigma_2 = k + \mu(2e_2 + e_1)$	(2b) $\sigma_1 = 0, \sigma_2 = k + \mu(2e_2 + e_1)$
(3a) $\sigma_1 = -k + \mu(e_1 - e_2), \sigma_2 = 0$	(3b) $\sigma_1 = -k + \mu(2e_1 + e_2), \sigma_2 = 0$
(4a) $\sigma_1 = \sigma_2 = -k + \mu(2e_1 + e_2)$	(4b) $\sigma_1 = \sigma_2 = -k + \mu(2e_2 + e_1)$
(5a) $\sigma_1 = 0, \sigma_2 = -k + \mu(2e_2 + e_1)$	(5b) $\sigma_1 = 0, \sigma_2 = -k + \mu(e_2 - e_1)$
(6a) $\sigma_1 = k + \mu(e_1 - e_2), \sigma_2 = 0$	(6b) $\sigma_1 = k + \mu(2e_1 + e_2), \sigma_2 = 0$

$$\tag{6}$$

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ACCESSION NR: AP4043891

The paper then considers shells of revolution under axial loads. The final relationships between the stress and strain of the shell:

[∩ ρ Ѵ means "when", and Ѵ ⩕ means "or" -]   (7)

$$N_1 = \mp kh (p + q) + \mu h (2\varepsilon_{10} + \varepsilon_{20}) \mp F_1'$$
$$N_2 = \mp kh (q + r) + \mu h (2\varepsilon_{10} + \varepsilon_{20}) \mp F_2'$$
$$M_1 = \pm \tfrac{1}{2} kh^2 (\tfrac{1}{2} - p^2 - q^2) + \tfrac{1}{12}\mu h^3 (2\varkappa_1 + \varkappa_2) \pm \Phi_1'$$
$$M_2 = \pm \tfrac{1}{2} kh^2 (\tfrac{1}{2} - q^2 - r^2) + \tfrac{1}{12}\mu h^3 (2\varkappa_1 + \varkappa_2) \pm \Phi_2'$$

$$N_1 = \mp kh (p + q) + \mu h (2\varepsilon_{10} + \varepsilon_{20}) \mp F_1', \quad N_2 = \pm kh (r - q) \mp F_2' \quad (8)$$
$$M_1 = \pm \tfrac{1}{2} kh^2 (\tfrac{1}{2} - p^2 - q^2) + \tfrac{1}{12} \mu h^3 (2\varkappa_1 + \varkappa_2) \pm \Phi_1'$$
$$M_2 = \pm \tfrac{1}{2} kh^2 (r^2 - q^2) \pm \Phi_2'$$

$$(9)$$

$$N_1 = \mp kh (p + q) + \mu h (\varepsilon_{10} - \varepsilon_{20}) \mp F_1', \quad N_2 = \pm kh (r - q) \mp F_2'$$
$$M_1 = \pm \tfrac{1}{2} kh^2 (\tfrac{1}{2} - p^2 - q^2) + \tfrac{1}{12} \mu h^3 (\varkappa_1 - \varkappa_2) \pm \Phi_1'$$
$$M_2 = \pm \tfrac{1}{2} kh^2 (r^2 - q^2) \pm \Phi_2'$$

$$(10)$$

$$N_1 = \mp kh (p - q) \mp F_1', \quad N_2 = \pm kh (q + r) - \mu h (\varepsilon_{10} - \varepsilon_{20}) \mp F_2'$$
$$M_1 = \pm \tfrac{1}{2} kh^2 (q^2 - p^2) \pm \Phi_1'$$
$$M_2 = \mp \tfrac{1}{2} kh^2 (\tfrac{1}{2} - q^2 - r^2) - \tfrac{1}{12} \mu h^3 (\varkappa_1 - \varkappa_2) \pm \Phi_2'$$

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ACCESSION NR: AP4043891 (11)

$$N_1 = \pm kh(q - p) \mp F_1', \quad N_2 = \pm kh(q + r) + \mu h(\varepsilon_{10} + 2\varepsilon_{20}) \mp F$$
$$M_1 = \pm \frac{1}{2}kh^2(q^2 - p^2) \pm \Phi_1'$$
$$M_2 = \mp \frac{1}{2}kh^2(\frac{1}{2} - q^2 - r^2) + \frac{1}{12}\mu h^3(\varkappa_1 + 2\varkappa_2) \pm \Phi_2'$$

$$M_1 = \mp \frac{1}{2}kh^2(\frac{1}{2} - p^2 - q^2) + \frac{1}{12}\mu h^3(\varkappa_1 + 2\varkappa_2) \pm \Phi_1'$$
$$M_2 = \mp \frac{1}{2}kh^2(\frac{1}{2} - q^2 - r^2) + \frac{1}{12}\mu h^3(\varkappa_1 + 2\varkappa_2) \pm \Phi_2'$$ (12)

$$F_1' = \mu h e_{10}(p - q + l - n) + \mu h e_{20}(q + 2p - l - 2n) +$$
$$+ \frac{1}{2}\mu h^2\varkappa_1(p^2 - q^2 + l^2 - n^2) + \frac{1}{2}\mu h^2\varkappa_2(q^2 + 2p^2 - l^2 - 2n^2)$$

$$F_2' = \mu h e_{10}(- q - 2r + l + 2m) + \mu h e_{20}(q - r + m - l) +$$
$$+ \frac{1}{2}\mu h^2\varkappa_1(l^2 + 2m^2 - q^2 - 2r^2) + \frac{1}{2}\mu h^2\varkappa_2(q^2 - r^2 + m^2 - l^2)$$

$$\Phi_1' = \frac{1}{2}\mu h^2 e_{10}(q^2 - p^2 + n^2 - l^2) + \frac{1}{2}\mu h^2 e_{20}(l^2 + 2n^2 - q^2 - 2p^2) +$$
$$+ \frac{1}{3}\mu h^3\varkappa_1(q^3 - p^3 + n^3 - l^3) + \frac{1}{3}\mu h^3\varkappa_2(l^3 + 2n^3 - 2p^3 - q^3)$$

$$\Phi_2' = \frac{1}{2}\mu h^2 e_{10}(q^2 + 2r^2 - l^2 - 2m^2) + \frac{1}{2}\mu h^2 e_{20}(r^2 - q^2 + l^2 - m^2) +$$
$$+ \frac{1}{3}\mu h^3\varkappa_1(q^3 + 2r^3 - l^3 - 2m^3) + \frac{1}{3}\mu h^3\varkappa_2(r^3 - q^3 + l^3 - m^3)$$

Card 4/5

ACCESSION NR: AP4043891

The characteristic solutions reached on the basis of all the evolved equations are illustrated by the bending of round viscoplastic plates under lateral loads. Equations are then given for stress and strain. An example is included of a laminated cylindrical shell of length 2L resting on the faces under an internal uniform pressure P. The equilibrium equation is

$$\frac{1}{2\omega^3}\frac{d^2m_1}{dt^2} + n_2 - p = 0 \tag{13}$$

It is then found that:

$$W = -\frac{p+1}{2v}\left(\frac{\cos\beta\,ch\,\beta\,\cos\beta t\,ch\,\beta t + \sin\beta\,sh\,\beta\,\sin\beta t\,sh\,\beta t}{\cos^2\beta\,ch^2\beta + \sin^2\beta\,sh^2\beta} - 1\right) \tag{14}$$

This means that the bending rate obtained from the last equation coincides with the deflection for an elastic solid. Orig. art. has: 4 figures and 43 equations.

ASSOCIATION: none

SUBMITTED: 04Apr64

SUB CODE: AS

NO REF SOV: 007

ENCL: 00

OTHER: 005

Card 5/5

SEMYKINA, T. C., T. I. PIROZHNIKOVA, T. V. FOCOSOVA, AND N.V. ZHURAVSKAYA, S. F. ZAYEVA

"Anaerobic Phages," Trudy Moskovokogo oblastnogo instituta epidem., mikrobiol., i infekt. bolozney imeni Mechnikova (Transactions of the Moscow Oblast Institute of Epidemiology, Microbiology, and Infectious Diseases imeni Mechnikov), 3, 5-12, Sverdlovsk, 1943

SEMYKINA, T. G.   Cand. Biolog. Sci.

Dissertation: "Experimental Data on the Effect of Ultraviolet Rays on
B. Perfringens." First Moscow Order of Lenin Medical Inst., 28 Apr 47.

SO: Vechernyaya Moskva, Apr, 1947 (Project #17836)

F-5

USSR / Microbiology. Microorganisms Pathogenic to Humans and Animals.

Abs Jour : Ref Zhur - Biol., No 20, 1958, No. 90959

Author   : Semykina, T. G.; Chernikova, N. G.
Inst   : Institutes of Vaccines and Sera of the Ministry of Public Health, USSR

Title   : Cultivation of B. perfringens by the Kettle Method

Orig Pub : Materialy po obmenu opytom. Gl. upr. in-tov vaktsin i syvorotok M-va zdravookhr. SSSR, 1956, 2/52, 163-169

Abstract : Successful cultivation of B. perfringens by the kettle method in casein hydrolysate medium of Adams and Hand /?/, modification of Vyshepan and Krasnova, yielded 15 - 16 milliard microbial cells in 1 ml after 6 hours of growth. The toxin formed after 4 - 5 hours of growth contained 80 - 160 MLD in 1 ml. Analogous results were obtained with cultivation in gallon bottles. The authors recommend

Card 1/2

68

33753
S/021/62/000/002/008/010
D299/D304

10.3400

26.√2⁰⁰
AUTHORS: Kremn'ov, O.O., Semylet, Z. V. and Buts'kyy, M. D.

TITLE: Study of heat transfer and resistance of elements of plate-fin heat-exchangers with perforated and corruga-ted fins

PERIODICAL: Akademiya nauk UkrRSR. Dopovidi. no. 2, 1962, 196-200

TEXT: The experimental setup was described by the authors in an earlier work. The characteristics of the elements under investiga-tion are listed in a table. Two of the corrugated elements had fins of the same dimensions (length 1 mm and height 0.5 mm), but the channels through which the air passed differed in shape: In element A, the channels had the same cross-section over the entire length, whereas in element B the cross-section was narrowed and widened al-ternatively. The resistance curves for the corrugated elements have a shape characteristic of rigid surfaces. The resistance of the element with variable cross-section was twice that with con-stant cross-section. In the third specimen (with constant cross-

Card 1/3

33753
Study of heat transfer ...   S/021/62/000/002/008/010
                                     D299/D304

ASSOCIATION: Instytut teploenerhetyky AN UkrRSR (Institute of Heat
               and Power Engineering of the AS UkrRSR)

PRESENTED: by Academician I. T. Shvets' of the AS UkrRSR

SUBMITTED: September 8, 1961

Card 3/3   X

S/526/62/000/024/002/013
D234/D308

AUTHORS: Kremnyov, O.O., Semylet, Z.V. and Buts'kyy, M.D.

TITLE: Investigation of heat loss and resistance of the
             elements of ribbed plate heat exchangers having
             mesh or perforated caps with deflected edges

SOURCE: Akademiya nauk Ukrayins'koyi RSR. Instytut teploener-
             hetyky. Zbirnyk prats'. no. 24, 1962. Teploobmin ta
             hidrodynamika, 14-23

TEXT: Data were processed in the form of a dependence be-
tween the similarity criteria $Nu = cRe^n$. Re was calculated from Re =
wd_{equ}/ν , $d_{equ} = 4F/p$. For perforated caps the convective heat loss
coefficient was determined from a well-known relation. The mean air
temperature in heat loss study was $35^\circ C$, the air velocity 2.5 - 25
m/sec, which corresponds to Re = 400-4000. Resistance was measured
under isothermal conditions with mean air temperature $25^\circ C$ and velo-
city 2.0 - 25 m/sec. The dependences of reduced heat loss coeffi-

Card 1/2

Investigation of heat loss ...   S/526/62/000/024/002/013
                                                  D234/D308

cient on the air velocity and pressure drop, of Nu on Re and of the
hydraulic resistance on Re are plotted. The flow in straight smooth
channels is thermally little efficient. To improve it, ribs are cut
into separate elements and the edges of these are deflected. The
optimum distance between the openings and the optimum edge deflect-
ion are 2 mm and 0.5 mm respectively. The resistance of elements
with chessboard perforation and edge deflection to one side is the
same as that of elements with corridor perforation (3.2 times that
of a smooth rib, the heat loss being 2.1 times that of a smooth
rib). Placing the openings on one side of the rib decreases the
heat loss. There are 7 figures and 2 tables.

Card 2/2

SEMYNIN, A.P.

BAKAKIN, V.P.; BUBOK, K.G.; BUGAREV, L.A.; BUNIN, A.I.; VOROB'YEV, K.V.
DROZDOV, V.V.; DOROKHOV, M.S.; ZUBRILOV, S.V.; IGNAT'YEV, L.A.
KARGOPOLOV, I.G.; KLUSHIN, D.N.; KOMAROV, A.M.; KURILOV, M.S.;
LOMAKO, P.F.; MIKULENKO, A.S.; MIKHAYLOV, M.M.; NEMTINOV, B.A.;
OL'KHOV, N.P.; OSIPOVA, T.V.; PAKHOMOV, Ya.D.; PLAKSIN, I.N.;
PODCHAYNOV, S.F.; PUSTYL'NIK, I.I.; ROZHKOV, I.S.; SAVARI, Ye.A.;
SEMYNIN, A.P.; SPIVAKOV, Ya.N.; STRIGIN, I.A.; SUSHENTSOV, S.N.;
SYCHEV, P.S.; TROITSKIY, A.V.; USHAKOV, K.I.; KHARLAMOV, A.Ye.;
SHEMYAKIN, N.I.

Nikolai Konstantinovich Chaplygin. TSvet. met. 28 no.2:57-58
Mr-Ap '55.   (MIRA 10:10)
        (Chaplygin, Nikolai Konstantinovich, 1911-1955)

SHASHURIN, Sergey Lavrent'yevich; LYASHKEVICH, A.S., gornyy inzh., retsen-
zent; SZMYHIN, A.P., retsenzent; ALEKSANDROV, N.N., red.; SIPYAGINA,
Z.A., red.izd-va; DOBUZHINSKAYA, L.V., tekhn.red.

[Opencast placer mining; manual for qualification improvement of
workers] Razrabotka rossypei otkrytym sposobom; posobie dlia
povysheniia kvalifikatsii rabochikh.   Moskva, Gos.nauchno-tekhn.
izd-vo lit-ry po gornomu delu, 1959.   208 p.   (MIRA 13:4)
     (Hydraulic mining)   (Strip mining)

KUZNETSOV, Ivan Kuz'mich, Geroy Sotsialisticheskogo Truda; KAMINSKIY,
V.V., gornyy inzh., retsenzent; PYATIBRATOV, Ye.A., gornyy inzh.,
retsenzent; MUTOVKIN, M.I., gornyy inzh., retsenzent; SEMYNIN,
A.P., gornyy inzh., retsenzent; NADION, M.F., otv.red.; ROMANOVA,
L.A., red.izd-va; BOLDYREVA, Z.A., tekhn.red.

[Placer mining in permafrost conditions] Razrabotka rossypnykh
mestorozhdenii v usloviiakh vechnoi merzloty. Moskva, Gos.
nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 223 p.
(MIRA 14:1)

(Hydraulic mining)   (Frozen ground)

MAKOVSKIY, V.A., inzh., SEMININ, S.A., inzh.; SHEVCHENKO, L.U., inzh.

Proportional relay for valve reversals and slide gates of open-hearth furnaces. Stal' 24 no.10:897-898 O '64.
(MIRA 17:12)

1. Dnepropetrovskiy filial Instituta avtomatiki Gosplana UkrSSR i zavod "Azovstal'".

USSR/Human and Animal Physiology. Neuromuscular Physiology.   V

Abs Jour: R. f. Zhur-Biol., No 6, 1958, 27282.

Author : Yu. Semynin, R.B. Garinb'yan and K.E. Bugayev
Inst   : The State Pedagogical Institute of Rostov-on-Don
Title   : A Method of Determining Muscle Tone in the Human

Orig Pub: Sb stud. nauchn pabot. Rostovsk.-n./D. gos. ped. in-ta,
          1957, No 1 (22), 79-87.

Abstract: A guage commonly used for determining change in
          radius of various cylindrical components while
          in use was employedas the basis of an instrument
          for measuring muscle tone. The construction of
          the apparatus and its operation are described.

Card   : 1/1

7 2

SAVIN', I.S.

Role of qualitatively different diets on some biochemical indices of rats with vitamin B deficiency. Vop. pit. 23 no.4 62-66 J1-Ag '64.

(MIRA 18:6)

1. Otdel vitaminologii (zav. - prof. V.V.Yefremov) Instituta pitaniya AMN SSSR, Moskva.

SEN', I.P. (Moscow)

Development of clinicomorphological signs of vitamin E deficiency
in white rats fed with fats of different quality. Vop.pit. 24
no.4:49-54   Jl-Ag '65.   (MIRA 18:12)

1. Otdel vitaminologii (zav. - prof. V.V.Yefremov) Instituta
pitaniya AMN SSSR, Moskva. Submitted February 4, 1965.

ACC NR: AP6032554   (A)   SOURCE CODE: UR/0143/66/000/009/0073/0078

AUTHOR: Sen', L. I. (Engineer); Podsushnyy, A. M. (Candidate of technical sciences; Docent)

ORG: Far Eastern Politechnical Institute im. V. V. Kuybyshev (Dal'nevostochnyy politekhnicheskiy institut)

TITLE: Hydrodynamic losses of the gas flow during formation of gas-liquid mixture

SOURCE: IVUZ. Energetika, no. 9, 1966, 73-78

TOPIC TAGS: atomization, fuel atomizer, fuel injection, spray nozzle, gas flow, DROPLET ATOMIZATION

ABSTRACT: The atomization of liquids by means of a gas stream is used in various technical devices such as nozzles, coolers, reactors, absorbers, etc. Two formulas have been previously derived for the approximate determination of the hydraulic losses in these devices. However, these two formulas account for only the loss due to the energy expended in accelerating the droplets to a given velocity, while the entire pressure loss actually consists of energy used for the deformation of the liquid jet, droplet formation, acceleration of the droplets, the friction of the gas on the surface of the liquid, and displacement of the liquid film. Therefore, in the present study, experiments were made to take into account these other factors. An assembly was used in which an air stream entering through a diffusor atomomizes the liquid (water) which is injected through radial orifices (0.3—3 mm in diameter) into the

Card 1/2   UDC: 532.501.312+533.27

SEN, P.K.; PARUKLAR, G.B.; DRUVA, A.Zh.; ZHAVERI, P.M. (Bombey, Indiya)

Open-heart surgery with selective cerebral hypothermia. Eksper.
khir. i anest. 8 no.4:55-59 Jl-Ag '64.   (MIRA 17:5)

AUTHORS: Zakharikov, N. A., Blokh, S. A., Sen', Z. P., SOV/72-58-9-9/20
              Lesovoy, N. V., Yarmak, O. F.

TITLE: Non-Recurrent Baking of Porcelain (Skorostnoy odnokratnyy
              obzhig farfora)

PERIODICAL: Steklo i keramika, 1958, Nr 9, pp 20 - 24 (USSR)

ABSTRACT: This is an investigation of the influence of the rate of
              heating of the products upon their quality, if they are
              baked by a non-recurrent process without casing. The
              tests were carried out with porcelaine cups, sizes B-53
              and "Kiyevskaya". The ingredients of the batch are given
              in table 1 and the results for the chemical analysis
              (in percent) are given in table 2. The molecular formula
              for the batch is also presented. For increasing the
              mechanical strength of the semi-finished porcelaine product
              0,3% of carboxy-methyl cellulose were added to the
              batch. 0,2% of fluid glass and 0,1% of soda were used
              in the preparation of the electrolyte. The porcelaine
              cups were cast in plaster molds so fashioned to give a
Card 1/4   wall strength of 1,5-2,5 mm. Moisture is driven off to

Non-Recurrent Baking of Porcelain'   SOV/72-58-9-9/20

a content of 1% under natural conditions. The ware is then
glazed with a 0-45VZPA hand operated atomizer. The raw
materials for the glaze are listed in table 1, their
chemical analysis is detailed in table 2. The molecular
formula of the glaze is also given. The glazed cups were
dried to a humidity of 0,5% and then baked in the
laboratory furnace (Fig 1). The maximum temperature in the
furnace was 1320°. The cups were placed on the bottom
of the furnace without a casing and were cooled according
to a schedule specified by the diagram in figure 2. The
heating and baking period at this temperature varied
between 2-5 hours. Data concerning the baking conditions
are presented in table 3. The degree of whiteness of
the body was determined by means of a FM photometer,
whereas the water absorption and the heat resistance
of the test products was checked according to GOST 7591-55.
The best whiteness was obtained with combustion gases
with a CO content of 3-4% (Fig 3). The rate of heating
varied between 60 and 300° per hour. At this rate the
Card 2/4   quality of the products obtained is by no means inferior

Non-Recurrent Baking of Porcelain   SOV/72-58-9-9/20

to that of the products from the Baranovka and Kiyev
Works. Their water absorption does not exceed 0,39% .
The specimens corresponded to the requirements imposed upon
them in the checking of thermal and chemical resistivity,
The glaze also exhibited a customary quality. Inves-
tigations of the microstructure of the body were carried
out with a MP-3 microscope and X-ray structural analyses
were made on the URS-70 instrument. In table 4 the
structures of customary and of test products are portrayed,
As can be seen they do not differ at all. Figures 4 to 8
contain micrographs of polished porcelaine sections made after
different baking periods. They do not indicate any
essential variations in structure. The duration of baking
is therefore not determined by the physical and chemical
transformations in the porcelaine but only by the heating
facilities of the furnaces. The cooling process has
hitherto not been the object of minute research. Preliminary
experiments showed that a cooling of porcelaine cups from
1320° to 100° is possible within 8 - 10 minutes without
impairing the quality of the product. The experiments
Card 3/4   showed that a non-recurrent burning without casing

Non-Recurrent Baking of Porcelain   SOV/72-58-9-9/2o

          of porcelaine products in short automatic continuous
          car tunnel furnaces is possible. There are 8 figures and
          4 tables.

ASSOCIATION: Institut ispol'zovaniya gaza AN Ukrainskoy SSR (Institute of
          Gas Utilization AS Ukr SSR)

          Nauchno-issledovatel'skaya laboratoriya Kiyevskogo
          sovnarkhoza (Scientific Research Institute of the Kiyev

          Council of National Economy)

Card 4/4

ZUBATOVA, I.N.; SEN', Z.P.; KUDRINA, T.I.

Using bentonites in the production of faience. Bent.glit̄y
Ukr. no.3:108-113 '59. (MIRA 12:12)

1. Nauchno-issledovatel'skaya laboratoriya Upravleniya farforo-
fayansovoy i stekol'noy promyshlennosti Kiyevskogo sovnarkhoza.
(Bentonite)

15(2)
AUTHORS:

SOV/72-59-4-9/21
Vizir, V. A., Sivchikova, M. G., Safonova, V. Z., Sen', Z. P.

TITLE:

On the Production of Porcelain and Faience Products by Means
of the Method of Pressing (Izgotovleniye farforovykh i
fayansovykh izdeliy sposobom pressovaniya)

PERIODICAL:

Steklo i keramika, 1959, Nr 4, pp 31 - 34 (USSR)

ABSTRACT:

Nauchno-issledovatel'skaya laboratoriya Upravleniya farforo-
fayansovoy i stekol'noy promyshlennosti Kiyevskogo sovnar-
khoza (The Scientific Research Laboratory of the Administra-
tion of the Porcelain-Crockery- and Glass Industry of the
Kiyev Sovnarkhoz   carried out experiments
for testing the production possibilities of flat products by
means of the method of pressing from semi-dry fine-ceramic
masses. Due to this method the production processes were con-
siderably reduced. In the course of the experiments the opti-
mum humidity and granulation of the press masses as well as
the conditions of pressing and burning were determined. In
table 1 the compositions of the test masses are given and
in table 2 the binding organic additions. The degree of

Card 1/2

SEN', Z.P.;   IVANOV, V.A.

Conveyer furnaces for the ornamental calcination of pottery.
Stek. i ker. 18 no. 1:23-26 Ja '61.   (MIRA 14:1)
            (Pottery)   (Kilns)

MITIN, N.G.; SEN', Z.P.; LUCHKA, M.Kh.

Mechanized production line for the manufacture of dishes. Stek.
i ker. 19 no.2:36-38 F '62.   (MIRA 15:3)
                        (Baranovka--Porcelain)

SEN', Z.P., kand.tekhn.nauk; TEREKHOVSKIY, B.I. [Terekhovs'kyi, B.I.], inzh.; YARMAK, O.F., inzh.

Some data on the effect of water vapor on the porcelain body in firing. Leh.prom. no.1:79-83 Ja-Mr '62.   (MIRA 15:9)

1. Ukrainskiy nauchno-issledovatel'skiy institut steklyannoy i farforo-fayansovoy promyshlennosti.
                    (Ukraine--Pottery)

SEN', Z.P.; SIVCHIKOVA, M.G.; LUCHKA, M.Kh.; BELYAKOVA, I.N.;
YARMAK, O.F.; DAYN, F.L.

Possibility of lowering the temperature of porcelain firing
and of its replacement in drying under high temperatures.
Stek.i ker. 19 no.9:21-24 S '62.   (MIRA 15:9)
(Porcelain)

SEN', Z.P., kand.tekhn.nauk; LUCHKA, M.Kh.; LUGANSKIY, V.I. [Luhans'kiy, V. I.]

Rapid glazing of decorated faience articles. Leh.prom. no.3:20-23
Jl-S '63.
(MIRA 16:11)

1. Ukrainskiy nauchno-issledovatel'skiy institut stekol'noy i far-
foro-fayansovoy promyshlennosti.

SEN', Z.P., kand.tekhn.nauk; LUGANSKIY, V.I. [Luhans'kyi,V.I.];
LUCHKA, M.Kn.

Firing of decorated glazed earthenware in conveyor kilns without
muffles. Leh.prom. no. 4:68-73 O-D '63.   (MIRA 17:5)

BONDAR, V.M.; SEN', Z.P., kand. tekhn. nauk

Automatic control of kilns with walking floors for porcelain firing. VLM. Bondar, Z.P. Sen'. Leh. prom. no.2:66-68 Ap-Je '64
(MIRA 17:7)

SEN', Z.P., kand.tekhn.nauk

Studying the permissible rates of heating and cooling of household faience goods in a slot firing kiln. Leh.prom. no.2:75-79 Ap-Je '65.

(MIRA 18:10)

SEN', Z.P., kand.tekhn.nauk; LUCHKA, M.Kh.; SKRIPKO, V.Ya. [Skrypko, V.IA.]

Use of liquid fuels in the firing of porcelain. Leh.prom.
no.1:66-70 Ja-Mr '64.   (MIRA 66-70)

BLOKH, S.A., kand.tekhn.nauk; GUZ, D.B., inzh.; RUBASHEVSKIY, I.Ya.,
inzh.; BAUMAN, A.Zh., inzh.; SEN', Z.P., kand.tekhn.nauk;
KHARITON, Ya.G., inzh.

Conveyor kiln with a walking hearth for rapid saggerless
firing of porcelain. Stek. i ker. 23 no.1:29-32 Ja '66.
(MIRA 19:1)

1. Institut gaza AN UkrSSR (for Blokh). 2. Konstruktorskoye
byuro Ukrainskogo soveta narodnogo khozyaystva (for Rubashevskiy,
Bauman). 3. Ukrainskiy institut stekol'noy i farforo-fayansovoy
promyshlennosti (for Sen', Khariton).

SEN-ZHELEN, Ye.A.,inzh; SHEVCHENKO, L.A.

Gas-turbine locomotives manufactured by General Electric.
Vest. TSNII MPS [17] no.7:60-63 N '58.   (MIRA 11:12)
          (United States--Gas-turbine locomotives)

Mechanism of the phenomenon of "memory" on repeated crystallization. S. ROGINSKII, L. SENA AND I. ZELDOVYWICH. *Physik. Z. Sowetunion* 1, (???) (1932). All theories proposed for this phenomenon depend upon the presence of residual micro-crystals in the melt. A refractometric study of fresh, stable and unstable nitroglycerin yields data incompatible with the isomeric theory. For the investigation of wall effects, expts. on rubbing the interior wall of the test tube were made. The results indicate that rubbing action and the previous history of the glass surface have much influence.

HOWARD AGNEW SMITH

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

SENA, L.

5151. Estimation of Positive Ion Current from Collector Characteristics. L. Sena. Techn. Phys., U.S.S.R. 1. 5-6. pp. 561-564, 1935. In English.—Rusk and Peckham's treatment of their own results [see Abstract 4286 (1934)] is questioned; in particular exception is taken to their method of rectilinear extrapolation of the positive ion current. With certain other reservations the experimental results are considered to conform fairly well to modern theoretical conceptions of the gas discharge.

F. C. C.