RYTIK, P.G.

Influence of infectious diseases of bacterial and virus etiology on the intensity and duration of immunity to diphtheria. Zhur. mikrobiol., epid. i immun. 32 no.9:141 S '61; (MIRA 15:2)

1. Iz Belorusskogo instituta epidemiologii, mikrobiologii i gigiyeny.
(COMMUNICABLE DISEASES) (DIPHTHERIA)

SHEVAKIN, Yu.F.; RYTIKOV, A.M.; TSIRUL'NIKOV, V.A.

Sizing the dies for drawing rectangular tubes with walls of equal thickness. Izv. vys. ucheb. zav.; tsvet. met. 8 no.3: 148-154 '65. (MIRA 18:9)

1. Moskovskiy institut stali i splavov, kafedra tekhnologii i avtomatizatsii prokatnogo proizvodstva.

S/136/60/000/010/007/010
E073/E335

AUTHORS: Shevakin, Yu.F., Candidate of Technical Sciences and Rytikov, A.M., Engineer

TITLE: New Method of Determining the Friction Coefficient During Cold-rolling of Tubes

PERIODICAL: Tsvetnyye metally, 1960, No. 10, pp. 76 - 78

TEXT: The method described in the paper differs from current methods by the fact that the friction forces were measured which occur as a result of the flow of the material and not as a result of external mechanical movement of the specimen relative to the tool. In contrast with other methods, the contact area during deformation remains constant, which simplifies the calculations. Thus, the dependence of the specific pressure and the friction forces on the conditions of deformation (wall thickness, degree of deformation) is studied independently of other factors. The basic components (Fig. 1) of the instrument are strikers (3) and a mandrel (4) between which a tube specimen (2) is deformed over a limited length. The designs of the strikers and of the specimen may differ. Due to the effect

Card 1/3

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

S/136/60/000/010/007/010
E073/E335

New Method of Determining the Friction Coefficient During Cold-rolling of Tubes

of a blocking bushing the deformation is in a single direction. The friction forces which act on the mandrel are measured by means of a sensor. The forces applied to the strikers during the process of deformation are also measured by sensing equipment; similar friction forces which prevent the flow of the metal occur at the contact surface between the mandrel and the specimen. The force T_3 acting on the blocking bushing is equal and opposite to the sum of the friction forces T_1 and T_2 between the metal in the deformation zone and the strikers (outer wall) and mandrel (inner wall), respectively. Knowing the friction forces, the friction coefficient can be easily determined after determining the normal component of the total pressure. The described instrument permits determining the dependence of the friction forces on the rate of deformation of the material. The method was utilised for investigating the coefficient of copper-steel friction during deformation of

Card 2/3

S/136/61/000/001/009/010
E193/E283

AUTHORS: Shevakin, Yu. F., Candidate of Technical Sciences and Rytikov, A. M., Engineer

TITLE: Non-Uniformity of Deformation in Cold Rolling of Profile Tubes

PERIODICAL: Tsvetnyye metally, 1961, No. 1, pp. 84-85

TEXT: The present paper relates to manufacture of profile (regular and irregular cross-section) tubes with small (6-12 mm) diameter bore by cold rolling in a Pilger-type mill. Analysis of the change of shape of the metal in the instantaneous deformation zone has led to the conclusion that it is impossible to ensure uniform deformation in such tubes made by this process. By choosing a suitable method of roll pass design; one can ensure the preservation of the correct shape of the tube during rolling, but it is not possible to prevent non-uniform deformation of the metal, the degree of non-uniformity depending on the D_h/D_w ratio, where D_h and D_w denote deformation coefficients relating to the height and width of the profile. The presence of residual stresses in the leading (tapered) part of a partly rolled tube and in a finished (not annealed) product, was qualitatively determined by tests in which

Card 1/ 3

S/136/61/000/001/009/010
E193/E283

Non-Uniformity of Deformation in Cold Rolling of Profile Tubes

the parts studied were immersed in an ammoniacal medium. In the case of tubes made of the V1070-1 (L070-1) alloy, cracks appeared already after 2-3 days immersion. This indicated that residual compressive stresses were present in the surface metal layers all round the tube perimeter. These stresses were set up owing to the fact that only the surface layer of the tube had been subjected to heavy deformation. The depth of penetration of deformation depends on the ld/H ratio, where ld is the length of the deformation zone and H the thickness of the rolled metal. In rolling of thick plates or blooms, small (0.2-0.6) magnitude of ld/H leads to lateral spreading, which is associated with non-uniform deformation. In rolling of profile tubes of rectangular cross-section (36 x 16 x 10 Ø mm), the ld/H ratio varies between 0.2 and 0.5 at the beginning and the end of the compression part of the pass, respectively. Since the possibility of lateral spreading during tube rolling is limited, superficial deformation of the metal leads to the onset of additional stresses. One of the parameters which characterizes the degree of non-uniformity of deformation is the minimum length,

OSADA, Ya.Ye., kand.tekhn.nauk; SHEVAKIN, Yu.F., kand.tekhn.nauk; SEMENOV, O.A., kand.tekhn.nauk; SEYDALIYEV, F.S., inzh.; RYTIKOV, A.M., inzh.

Investigating the relationship between pressures in metal caused by cold rolling of pipes and basic parameters of the rolling process. Biul.nauch.-tekh.inform.VNITI no.4/5:81-93 '58. (MIRA 15:1)
(Pipe mills)

SHEVAKIN, Yu.F., kand.tekhn.nauk; RYTIKOV, A.M., inzh.

Cold rolling of shaped pipe. TSvet.met. 31 no.12:70-77 D '58. (MIRA 11:12)

(Rolling (Metalwork)) (Pipe, Copper)

S/136/60/000/02/014/022
E193/E483

AUTHORS: Koshurin, A.V., Engineer;
Shevakin, Yu.F., Candidate of Technical Sciences and
Rytikov, A.M., Engineer

TITLE: Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

PERIODICAL: Tsvetnyye metally, 1960, Nr 2, pp 64-72 (USSR)

ABSTRACT: Aluminium and aluminium alloy tubes of both symmetrical and asymmetrical cross-section are at present extensively made by extrusion through bridge dies. This method is not suitable for extruding copper tubes of this type owing to much higher extrusion temperature and the tendency of copper to oxidize; the former affects the stability of the die, the latter causes difficulties in the formation of good quality weld between two streams of the extruded material. It was for this reason that the method of extruding copper hollow shapes of asymmetrical cross-section through a die with compensating die aperture(s) has been developed, the present paper reporting the work carried out in this connection. The shape of the tube, whose fabrication

S/136/60/000/02/014/022
E193/E483

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

has been investigated, is shown in Fig 1; the range of dimensions (in mm) is given in the table in Fig 1. It follows from the theoretical considerations that if no precautions were taken, section F_I of the tube would emerge from the die at a rate higher than that of section F_{II} (see Fig 1); the tendency of the metal to emerge at a uniform rate would result in an increase of the area F_I and displacement of the mandrel towards the section F_{II}. The rate at which the metal emerges from the die on the side of section F_I can be reduced only by increasing the quantity of metal extruded on this side and this can be attained only by the provision of an additional compensating aperture(s) in the die. To investigate the effect of the area and circumferences of the compensating aperture(s) and its (their) distance from the mandrel axis on the extrusion process, 14 experimental dies were prepared. The design of these dies is illustrated in Fig 2; the distance of the compensating aperture(s) in dies Nr 1 to 8 is shown in

S/136/60/000/02/014/022
E193/E483

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

the drawings; their diameter in the table in Fig 2; the length of the rectangular, compensating aperture in dies Nr 9 to 14 is shown in the drawing, its width (a) and distance from the mandrel axis (b) are given in the table. These dies were used in extrusion tests, carried out at 900 to 960°C, in a 3000 t extrusion press, on billets 300 mm diameter and 400 mm long; the effect of various parameters of the die on the extrusion process was studied by studying their effect on the displacement of the mandrel, Δz. The results of these tests are reproduced in Fig 3; graph "a" shows Δz (mm) plotted against the area of the compensating aperture(s) (F_{np}, mm^2) in dies Nr 1 to 8; graph "b" shows Δz (mm) against the total circumference (Π, mm) of the compensating aperture(s) in dies Nr 4, 7 and 8, the area of the compensating aperture(s) being constant and equal 451 mm^2; graph "v" shows Δz (mm) plotted against the ratio Π/F_{np} in dies Nr 1 to 8, the difference of the areas $F_{II} - F_I$ being constant and equal 423 mm^2;

S/136/60/000/02/014/022
E193/E483

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

finally, graph "g" shows Δz (mm) plotted against the distance (l, mm) between the compensating aperture and the mandrel axis in dies Nr 9 to 14, for two areas of the compensating aperture: F_{np} = 783 mm^2 (upper curve) and F_{np} = 1020 mm^2 (lower curve). It was established on the basis of these results that the areas of the compensating aperture, F_{np}, is given by the following general formula:

$$F_{np} = (F_{II} - F_I) \cdot \frac{\Pi_I + \Sigma\Pi_{np}}{II} \qquad (1)$$

where: $\Sigma\Pi_{np}$ - sum of the circumferences of the compensating aperture(s) (mm); Π_I - circumference of part F_I of the cross-section of the extruded shape (mm); Π_{II} - circumference of part F_{II} of the cross-section of the extruded shape (mm). The size of the compensating aperture of a circular shape is given by the formula

Card 4/9

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

$$D_{np} = 2a\left(1 + \sqrt{1 + \frac{\Pi_I}{\pi \cdot a \cdot n}}\right) \qquad (2)$$

where: D_{np} - diameter (mm) of the compensating aperture; n - number of compensating apertures;

$$a = \frac{F_{II} - F_I}{\Pi_{II}}$$

The application of this formula is illustrated (see the bottom of p 66) by calculating the optimum value of D_{np} for the die shown in Fig 2 (dies Nr 1 to 6), which is found to be equal 24.0 mm; its area of 452 mm^2 corresponds (as can be seen in Fig 3a) to $\Delta z = 0$. The method, described above, was used in designing a series of dies, employed in fabricating a trial batch of hollow shapes as illustrated in Fig 1; the dies were made of steel 3Kh2V8, mandrel of steel E1661. The results showed that, with the aid of

S/136/60/000/02/014/022
E193/E483

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

dies with compensating aperture(s), hollow shapes of the type under consideration can be successfully extruded if the diameter of the hollow (dimension D) is not less than 14 mm. Hollow shapes with $D > 14$ mm were fabricated by extruding blanks which were then reduced to the required size by cold rolling. The problems, associated with the latter operation, are discussed in the second part of the present paper which is concerned mainly with the design of the roll pass for this application. Fig 4 shows (a) the deformation zone and (b) the horizontal projection of the areas of contact in rolling the hollow shape of the cross-section shown in Fig 1. The analytical solution of the roll pass design was based on two fundamental conditions: (1) equality of the total deformation of contours I and II (see Fig 1); (2) equality of the horizontal projections of the areas of contact between metal and the top and bottom rolls. After deriving the necessary formulae, the authors show how they are applied in

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

practical calculations for the design of both open and closed passes. The linear projection of the pass is shown in Fig 5a, Fig 5b showing the variation of the shape of the groove (closed pass) along its working length (sections 0^1, 4 and 9 on the linear projection); the dimensions of the pass at sections 0^1 - 9 are tabulated below Fig 5. The shape of the groove in open pass is shown in Fig 6; the dimensions of this pass in sections 0^1 - 9 are given in the accompanying table. (The taper of the mandrel in both cases is given by $2 \operatorname{tg}\alpha = 0.0284$.) Rolls of this design were used for making hollow shapes with D = 12 mm; a rolling mill, type "Meer" - 2 1/2, with the returning mechanism disconnected, was used for this purpose. The distribution of the total pressure (P_{Σ}, t) exerted by metal on the rolls along the working part of the groove (l_p, mm) is shown in Fig 7 for both the closed (graph a) and open (graph b) passes; curves 1 and 2 correspond to the forward and reverse runs respectively. Fig 8 shows how the cross-section of the tube changes when passing

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

through the rolls with (A) open and (B) closed passes. In order to study the flow of metal during rolling, aluminium pins were inserted in the blanks. X-ray photographs of sections of the tubes before (a) and after (b) rolling in both open (photograph I) and closed (photograph II) passes, reproduced in Fig 9, show that practically no distortion of the pins occurred during rolling, thus confirming the validity of the principles on which the present authors based their calculations, and proving that calculations starting from the external geometry on the hollow shapes of asymmetrical cross-section alone cannot give the correct solution. After rolling, the tubes (30 to 40 m long) were coiled having first passed through two dies: the first die removed the surface imperfections (fins, burrs etc), the second die acting as the sizing die. (The authors point out, in this connection, that passing the tube through the first die is less likely to affect the roundness of the hollow in case of tubes rolled in

S/136/60/000/02/014/022
E193/E483

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

a closed pass since, in this case, the fins are not situated opposite the hollow.) After concluding that the method described in the present paper can be used for designing roll passes for rolling asymmetrical sections with hollows of any shape (square, rectangular) from blanks with circular hollows, they point out that although hollow shapes with asymmetrical cross-section can be also made by rolling blanks of symmetrical cross-section, a portion of the material being cut off in the course of rolling (see Fig 10), the disadvantage of this method lies in that it is more likely to give rise to surface defects (laps). There are 10 figures, 4 tables and 5 Soviet references.

ASSOCIATIONS: Zavod "Krasnyy Vyborzhets" ("Red Elector" Plant)
Moskovskiy institut stali (Moscow Steel Institute)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

S/136/61/000/004/005/006
E193/E183

AUTHORS: Shevakin, Yu.F., Candidate of Technical Sciences, and Rytikov, A.M., Engineer

TITLE: Means of Further Increase in the Productive Capacity of Cold Tube Reducing Mills

PERIODICAL: Tsvetnyye metally, 1961, No. 4, pp. 51-58

TEXT: As a result of improvements in the roll pass design and rolling techniques (Refs. 1, 2) the productive capacity of cold reducing mills has increased to such an extent that cold reducing can now compete with cold drawing. However, analysis of operational data indicates that the productive capacity of cold reducing mills could be further increased by 20-30%. In the present paper, an attempt is made analytically to establish the means by which this increase can be attained and to provide a theoretical basis for determining the maximum productive capacity of a mill either from the characteristics of the mill or from the properties of the metal rolled. The argument presented by the authors is based on the relationship between the roll pass design and various parameters of the reducing process. The working part of the pass,

Card 1/7

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

S/136/61/000/004/005/006
E193/E183

Means of Further Increase in the Productive Capacity of Cold Tube Reducing Mills

L_p, can be represented as $L_p = \ell_o + \ell_r + \ell_p + \ell_k$, where ℓ_o, ℓ_r, ℓ_p and ℓ_k denote the lengths of the compression, reducing, pre-finishing, and sizing zones, respectively. At the same time, $\ell_k = m\mu_\Sigma \Pi_2$, and $\ell_p = m\mu_\Sigma \Pi_1$, where m is the magnitude of feed, μ_Σ is the total elongation, Π_2 is the coefficient of reduction of the wall thickness, and Π_1 is the coefficient of reduction of the tube diameter. When the productive capacity of the mill is increased, ℓ_o decreases, owing to an increase in ℓ_p and ℓ_k. Correspondingly, the roll pressure increases and there is a decrease in, so-called, divisibility of deformation. Consequently, ℓ_o can be determined starting either from the maximum permissible roll pressure or from minimum divisibility of deformation. The coefficient of divisibility of deformation, n_d, is given by $n_d = V_K/V_m$, where V_K is the volume of the working cone in the compression zone of the pass, and V_m is the volume of

Card 2/ 7

S/136/61/000/004/005/006
E193/E183

Means of Further Increase in the Productive Capacity of Cold Tube Reducing Mills

the metal feed which is given by the product mF_z, where m is the feed and F_z is the cross-section area of the stock. After deriving an approximate formula for n_d, the present authors discuss the effect of n_d on the plasticity of the metal rolled. It is stated that fracture of plastically deformed metal is caused by tensile stresses set up in certain volumes of the metal. In the case of cold reducing, additional tensile stresses which can, and do, lead to fracture of the metal are set up in the section of the tube in the outlet of the pass, where the wall of the tube is subjected to forced elongation. (These sections can be referred to as out-of-contact sections since it can be assumed that they touch neither the mandrel nor the surface of the pass). At a certain value of n_d, these tensile stresses become sufficiently high to cause fracture of the metal. There is a value of n_d at which no fracture of metal yet occurs, but which when further decreased, causes a decrease in the plasticity of the metal; this is the minimum permissible value of n_d which is denoted by $n_{d_{min}}$.

Card 3/7 ...-(ANPT-75) mill through a pass

S/136/61/000/004/005/006
E193/E183

Means of Further Increase in the Productive Capacity of Cold Tube Reducing Mills

63 x 9 — 38 x 3 mm, transverse cracks were formed on the tube surface, when deformation of 78%, l_0 = 259 mm, and m = 12-13 mm were used, which corresponded to n_d = 7.1-7.6. In cold-reducing of copper tubes on the KhPT-75 mill through a pass 68 x 4 — 42 x 1 mm (reduction of 84%), cracking occurred at m = 14-15 mm, which corresponded to n_d = 5.1-5.5. Since with decreasing $n_{d_{min}}$ the maximum productive capacity of the mill increases, the authors discuss the possible means of reducing the magnitude of $n_{d_{min}}$, and suggest the following measures. (1) The tube should be turned not once, but twice, during one rolling cycle. The effectiveness of this expedient has been proved experimentally. (2) The relative deformation on the consecutive deformation regions should vary in the same manner as the elongation δ, and the reduction of area, ψ, of the metal, so that the relative deformation never exceeds δ and ψ which, of course, decrease as the metal work-hardens while the tube is being reduced. (3) The length of the compression zone,

S/136/61/000/004/005/006
E193/E183

Means of Further Increase in the Productive Capacity of Cold Tube Reducing Mills

β_0, of the pass should be increased. This can be achieved by using a mandrel with a small taper which makes it possible to decrease β_k. In this connection, it is stated that in order further to reduce β_k, to increase the life of the rolls, and to improve the quality of the tubes, a process was developed in which cold-reducing was combined with drawing through a die attached to the cold-reducing mill. Using the formula derived in the present paper, the authors calculated the maximum productivity of various cold-reducing mills, as determined by the maximum permissible roll pressure. The following results were obtained: 360-540 m/h for alloy L070-1; 475 m/h for alloy L62 (L62); 695-790 m/h for copper. When the maximum productivity of the same mills was calculated starting from the properties of the metal rolled (as determined by $n_{d_{min}}$), the results obtained were: 320-350 m/h for alloy L070-1; 348 m/h for alloy L62; 390-394 m/h for copper. It will be seen that the productive capacity of a cold reducing mill is limited not by the permissible roll pressure, but

S/136/61/000/004/005/006
E193/E183

Means of Further Increase in the Productive Capacity of Cold Tube Reducing Mills

by the plasticity of the metal rolled. Consequently, it would appear that the present cold-reducing mills are overdesigned and that mills of much lighter construction could, and should, be used. Acknowledgements are made to L.M. Radchenko and N.N. Voronin, who participated in this work.
There are 6 figures, 3 tables and 7 Soviet references.

ASSOCIATION: Moskovskiy institut stali
(Moscow Steel Institute)

Card 7/7

SHEVAKIN, Yu.F., kand.tekhn.nauk; RYTIKOV, A.M., inzh.

Nonuniform deformation during the cold rolling of shaped pipes. TSvet. met. 34 no.1:84-85 Ja '61. (MIRA 17:3)

1. Moskovskiy institut stali.

SOV/136-59-4-11/24

AUTHORS: Shevakin, Yu.F., Candidate of Technical Sciences, Rytikov, A.M., Sharov, I.Ye., Butomo, D.G., Koshurin, A.V., Sergeyeva, Z.L., Engineers

TITLE: Comparison of the Efficiency of Tube Production from Non-Ferrous Metals and their Alloys by Cold-Rolling and by Drawing Methods (Ekonomicheskaya effektivnost' proizvodstva trub iz tsvetnykh metallov i splavov kholodnoy prokatkoy po sravneniyu s volocheniyem)

PERIODICAL: Tsvetnyye metally, 1959, Nr 4, pp 57-63 (USSR)

ABSTRACT: Opinion was divided on the relative merits of the different methods of tube production, therefore the present investigation was carried out. All sizes of tubes were tried by the two methods. It was shown that output from cold-rolling was 10-25% higher than that from drawing (table 1). The machine-hours and man-hours for cold-rolling were shorter than for drawing (table 2). Table 3 shows the increase in production by cold-rolling with better equipment. By cold-rolling with modern equipment the machine-hours and man-hours could be cut by two in the production of copper tube. The economy in

Comparison of the Efficiency of Tube Production from Non-Ferrous Metals and their Alloys by Cold-Rolling and by Drawing Methods

this case was 224 roubles per ton and in other cases varied from 165 to 374 roubles per ton. The number of operations in the copper tube production was reduced from 27 to 18. The production of condenser tubes in L68 (brass) alloy has been increased from 70-90 to 180-200 m/hr. An advantage of cold-rolling is that deformation can be up to 94% of the initial section. It also allows the manufacture of tubes from L68 without an intermediate temper, giving a tensile strength of 75-77 kg/mm^2 and an elongation of 2.5-3%. For materials which are difficult to deform (e.g. some Ti alloys) cold-rolling is a superior method of tube production as the machinery is cheaper and the number of operations is reduced. At present, work is in hand for a cold-rolling mill which will produce two or three tubes simultaneously.

Comparison of the Efficiency of Tube Production from Non-Ferrous Metals and their Alloys by Cold-Rolling and by Drawing Methods

There are 5 tables and 4 references, 3 of which are Soviet and 1 German.

ASSOCIATIONS. Institut stali; Zavod „Krasnyy Vyborzhets„; Kol'chuginskiy zavod po obrabotke tsvetnykh metallov i splavov (Steel Institute; "Krasnyy Vyborzhets" Works and Kol'chugino Works for Processing of Non-Ferrous Metals and Alloys)

ACCESSION NR: AP4015112 S/0136/64/000/002/0070/0075

AUTHORS: Ry*tikov, A. M.; Shevakin, Yu. F.; Koshurin, A. V.

TITLE: Forces on the ram during tube extrusion.

SOURCE: Tsvetny*ye metally*, no. 2, 1964, 70-75

TOPIC TAGS: Extrusion, extrusion force, tube extrusion, ram, design, upsetting, ram stress, ram compression, ram stretching force

ABSTRACT: Measurements were made of forces applied to 15, 26, 45 and 55 mm. diameter rams used in extruding tubes having 2,3,4, and 6 mm. walls from 150 x 200 mm. copper billets on a 1500 ton horizontal press. On upsetting the billet the forces on the ram increase to a maximum and then decrease as it approaches the die. The upsetting proceeds in two stages characterized by reverse flow of the metal which is progressively retarded by frictional forces until the deformation of the ingot is caused by shearing of the non-upset portion of the billet at the bottom. The nature of the change in stresses on

the ram along the length of the ingot and the position of the maximum stress depends on the ratio of the ram and the container diameter. As the diameter of the ram decreases, the position of the maximum stress shifts in the direction of the die. The total of the stresses on the ram, σ, is the sum of the stresses due to the cutting forces, σ', and the frictional forces, σ'': $\sigma = Z(\sigma' + \sigma'')$, Z being the temperature coefficient accounting for the cooling of the metal (limits of 1.0-1.6). The force on the ram may be expressed by $P = (\pi d^2/4)$. The compression stresses on the ram decrease as its diameter increases, e.g. increasing the diameter from 15 to 55 mm. reduces stresses from 45 to 25 kg/mm^2. Resistance to deformation increases on transition from upsetting to extrusion, and the friction increases until it is the only force on the ram as the metal flows through the die. The forces on the ram are less with a larger diameter ram and a tube with thicker walls. Stretching forces are developed on the ram on removing it at the end of the extrusion. As a result of these investigations a new ram has been constructed (Shevakin, Yu. F., Ry*tikov, A.M. and Koshurin, A.V., inventor certificate No. 143009) comprising the combination of a larger removable ram and a smaller operating ram

ACCESSION NR: AP4015112

which is longer than present rams. "V. A. Petrov and V. I. Polovinkina participated in conducting the experimental work." Orig. art. has: 2 tables, 5 equations and 3 figures.

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 12Mar64 ENCL: 00

SUB CODE: MD, ML NR REF SOV: 006 OTHER: 001

Card 3/3

SOV/137-59-2-4313

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 2, p 283 (USSR)

AUTHORS: Osada, Ya. Ye., Shevakin, Yu. F., Semenov, O. A., Seydaliyev, F. S., Rytikov, A. M.

TITLE: An Investigation of the Roll-separating Pressure as a Function of the Principal Parameters of the Process of Cold Rolling of Pipes (Issledovaniye zavisimosti davleniy metalla pri kholodnoy prokatke trub ot osnovnykh parametrov protsessa)

PERIODICAL: Byul. nauchno-tekhn. inform. Vses. n.-i. trubnyy in-t, 1958, Nr 4-5, pp 81-93

ABSTRACT: The measurements of the roll-separating pressure (RP) were accomplished with the aid of carbon-type gages, mounted within the wedge of the screw-down mechanism, and with the aid of wire resistance strain gages attached to a specially designed wedge in the screw-down mechanism. The following was established: 1) A change in the rate of feed m and in the total elongation μ_{Σ} significantly affects the RP; 2) in order to obtain constant rolling stresses during rolling of identical billets into pipes (P) exhibiting considerable variations in wall thickness, it is imperative that the operating conditions of the

An Investigation of the Roll-separating Pressure as a Function of the (cont.)

rolling mill (the value of the product $m \cdot \mu_{\Sigma}$) be appropriately adjusted; in all other instances when the variations in the wall thickness of finished P's are insignificant, the rolling conditions may be regarded as constant; 3) in the case of the rolling mills KhPT 1-1/2" and KhPT 2-1/2", the RP increases by 31% and 16%, respectively, as the wall thickness of the billets is increased by 36%; 4) increasing the width of roll passes in the range where $D_x/B_x = 0.93 + 0.98$ results in a significant increase in RP; in designing roll passes, all measures should be taken to minimize the width of pass openings as far as possible; 5) increasing the diameter of the P, the dimensions of the billets and the values of the expression $m \cdot \mu_{\Sigma}$ remaining constant, also leads to an increase in the RP.

Ye. T.

SOV/136-58-12-15/22

AUTHORS: Shevakin, Yu.F., Candidate of Technical Sciences and Rytikov, A.M., Engineer

TITLE: Cold Rolling of Shaped Tubes (Kholodnaya prokatka profil'nykh trub)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 12, pp 70 - 77 (USSR)

ABSTRACT: The authors enumerate some disadvantages of recently described (Ref 1) roll-pass designs for producing 18-m long rectangular tubes with a round bore. They state that investigation has enabled a system free from these effects to be devised which has been adopted at the "Krasnyy Vyborzhets" Works, has led to a better billet and enabled the shape and dimensions of the initial billet to be determined. They consider that in rolling shaped profiles, the aim should be to reduce to a minimum non-uniformity of deformation and base their treatment of a rectangular tube with a round bore on certain similarities to the rolling of rectangular-bore rectangular tubes (Figure 1). They split the cross-section of the tube and billet into a series of areas to examine geometrical contours. Deducing the conditions for producing rectangular tubes with minimal ovality from round-bore rectangular billets, the authors show (Figure 3)

the influence on this of wall thickness. They go on to discuss their selection of billet form (Figure 4) and the pass design (Figure 5). The adoption of this pass design increased mill productivity by more than 1.5 times, the load on the mill being simultaneously reduced and better tube dimensions, pass durability and billet pressing were the result. Figure 6 shows the metal pressure in the roll along the length of the groove when rolling copper rectangular 36 x 16 x 16 mm tubes, Figure 7 showing the corresponding deformations. The authors give the pass design (Figure 8) for rolling 16-18 m long square tubes from a round billet and details of the calculations. They go on to consider the applicability of drawing to producing round-bore square tubes, giving several schedules (Tables 1,2) and the pass design for 10 x 10 mm tube with a 6 mm bore. There are 9 figures, 2 tables and 4 Soviet references.

RYTIKOV, A. M.

Cand Tech Sci - (diss) "Study of the process of cold rolling of profile pipe made from non-ferrous metals and alloys." Moscow, 1961. 22 pp; including cover; with diagrams; (Academy of Sciences USSR, Inst of Metallurgy imeni A. A. Baykov); 180 copies; free; (KL, 6-61 sup, 225)

SHEVAKIN, Yu.F., kand.tekhn.nauk; RYTIKOV, A.M., inzh.

Ways of further increasing the performance of mills for the cold rolling of pipe. TSvet. met. 34 no. 4:51-58 Ap '61. (MIRA 14:4)

1. Moskovskiy institut stali.
(Pipe mills)

SHEVAKIN, Yu. F., doktor tekhn. nauk; RYTIKOV, A. M., inzh.;
KASATKIN, N. I., inzh.; MATVEYEV, B. N., inzh.

Determining reductions in the cold rolling of pipe. Sbor. Inst. stali i splav. no.40:413-421 '62. (MIRA 16:1)

(Pipe mills) (Deformations(Mechanics))

RYTIKOV, A. M., inzh.; SHEVAKIN, Yu. F., doktor tekhn. nauk

Basic principles of grooving design for the cold rolling of rectangular pipes of nonferrous metals and alloys. Sbor. Inst. stali i splav. no.40:369-380 '62. (MIRA 16:1)

(Pipe mills) (Pipe, Copper)

MALYSHEV, V.S., gornyy inzhener.; NEKRASOV, O.P., gornyy inzhener.; RYTIKOV, K.M., gornyy inzhener.

Systems of mining thin, flat skarn deposits. Gor. zhur. no.2:14-18 F '57. (MLRA 10:4)

1. Dzhenichkinskoye rudoupravleniya.
(Mining engineering) (Silicates)

SHEVAKIN, Yu.F., kand.tekhn.nauk; RYTIKOV, A.M., inzh.

Importance of mill adjustment in the cold rolling of pipes.
TSvet.met. 31 no.1:81-83 Ja '58. (MIRA 11:2)
(Rolling mills) (Pipe, Copper)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

136-1-17/20

AUTHORS: Shevakin, Yu.F., Candidate of Technical Sciences, and Rytikov, A.M., Engineer.

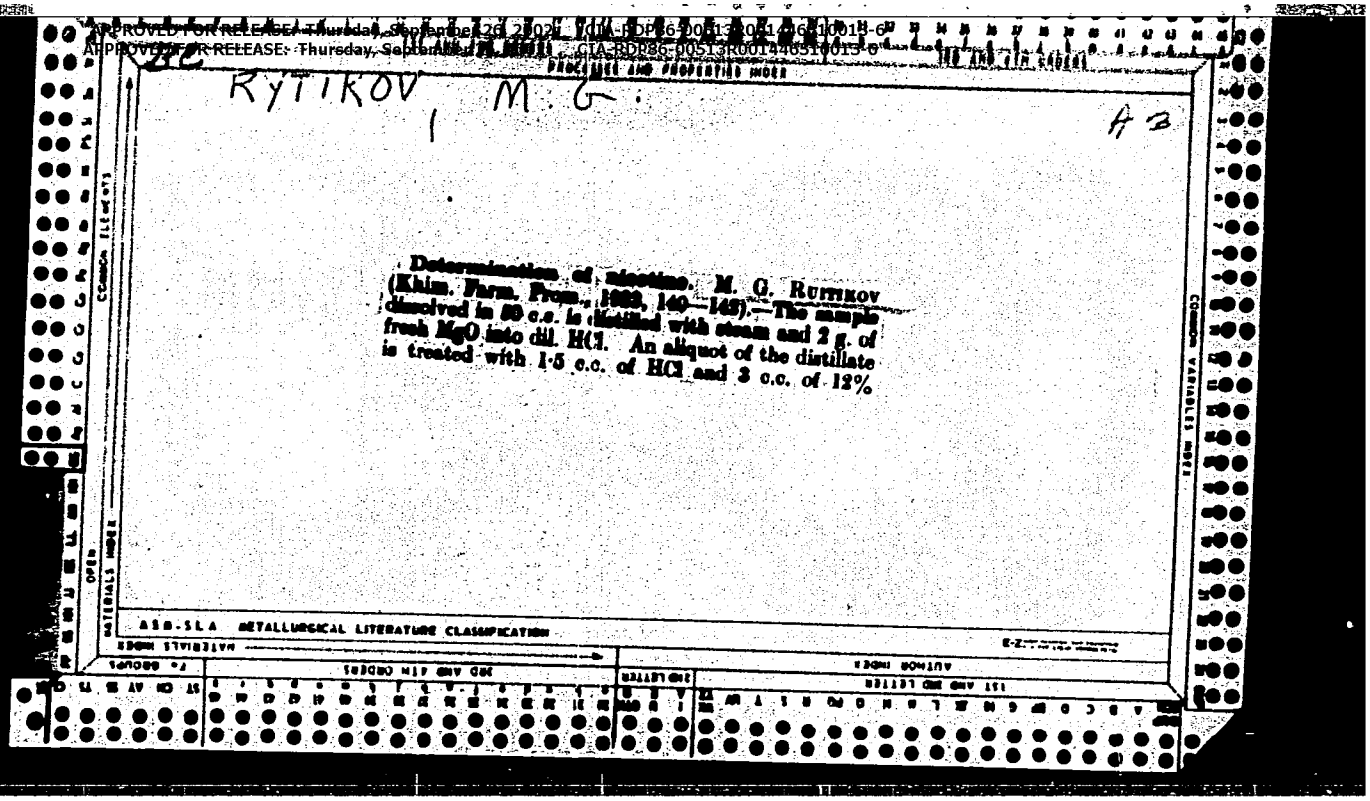
TITLE: The Importance of Mill Adjustment in the Cold Rolling of Tubes (Znacheniye nastroyki stana pri kholodnoy prokatke trub)

PERIODICAL: Tsvetnyye Metally, 1958, No.1, pp. 81 - 83 (USSR)

ABSTRACT: The authors discuss the effects of roll wear and of incorrect setting on the size of the gap round the outside of the pass (Fig.1) and on the metal pressure on the rolls. They go on to consider tube-wall deformation, showing a graph of changes in relative deformation and metal pressure with a tapering gap for the alloy Л68. They state that with aluminium alloys such as Д1, Д16 or А1070, such a gap can lead to the formation of transverse cracks in the tubes. After considering ways of minimising pass wear in working rolls, the authors suggest that wall-thickness tolerances of the tube billets can be increased to ± 15%.
There are 6 figures.

AVAILABLE: Library of Congress

Card 1/1



RYTIKOV, M. G.

42

Determination of nicotine. M. G. Rutikov (Khim. Farm. Prom., 1939, 140—145).—The sample dissolved in 50 c.c. is distilled with steam and 2 g. of fresh MgO into dil. HCl. An aliquot of the distillate is treated with 1·5 c.c. of HCl and 3 c.c. of 12%

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

PROCESSES AND PROPERTIES INDEX

BC

B-II-2

Purification of nicotine. M. G. Rutikov and L. Arzhanova (Khim. Farm. Prom., 1933, 275—279).—Nicotine is extracted with benzine (b.p. 80—110°), dissolved in H_2O, freed from resins, conc., and fractionated. Resins and residues are used to prepare 40% nicotine sulphate. Ch. Abs.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Thursday, September 26, 2002 | CIA-RDP86-00513R001465510013-6

A study of the chemical composition of chufa nuts. M. G. Ruitikuv. *Schriften zentral. Forschungsinst. Lebensmittelchem.* (U. S. S. R.) 4, 136-44(1933).—The chufa nut, or earth almond, is fairly rich in oil, starch and water-sol. carbohydrates; its edible oil has excellent flavor. If the tech. difficulties of efficient sepn. of shells and kernels at low cost can be solved, the chufa nut will provide a good but cheap substitute for the more expensive nuts in confections and baked goods. Analytical data are given for the sugars, starch and oil of the nuts. J. F. S.

ca

17

Rapid microanalytical method for determination of nicotine in Nicotiana rustica. M. G. Rytikov. *Tabachnaya Prom. S. S. S. R.* **1936**, No. 9, 22–3.—Place 1 g. of finely disintegrated tobacco in a 1000-cc. glass cylinder together with about 1 g. CaO and 3 cc. H_2O. Agitate with a glass rod for 10 min., add 1 g. of burned gypsum and agitate until the mass is homogeneous. Add 20 cc. of pure toluene and shake for one min. with a closed stopper. Filter into a dry 25-cc. beaker, pipet 10 cc. into a conical 25-cc. flask and add 5 cc. H_2O and 5 cc. of 0.2% alc. soln. of litmus. Titrate with 0.1 *N* H_2SO_4 by means of a microburet. The titration is complete as soon as the aq. layers acquire a violet color changing to blue after standing. One cc. of 0.1 *N* H_2SO_4 = 0.0162 g. nicotine.

A. A. Boehtlingk

RYTIKOV, N.

For the good of the Soviet man. Vsem.prof.dvizh.no.23-24:26-29 D '53. (MLRA 7:1)
(Russia--Manufactures)

1. RYTIKOV, N.

2. USSR (600)

4. Kenya - Social Conditions

7. People of Kenya are struggling, V pom. profaktivu, 14, no. 10, 1953.

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

KAURICHEV, I.SI.,kand.sel'skokhozyaystvennykh nauk, dotsent; NOZDRUNOVA, Ye.M., kand.biologicheskikh nauk; RYTIKOVA, M.N.

Qualitative composition of the humus of turf-Podzolic soils in areas of temporarily overwet soils [with summary in English]. Izv. TSKhA no.5:101-113 '60. (MIRA 13:11)
(Podzol) (Humus)

USSR/General Biology - Individual Development. B-4

Abs Jour : Ref Zhur - Biol., No 4, 1958, 14392

Author : Rytikova, M.N., Krasil'nikova, G.M.
Inst :
Title : Mass Correlation of the Cerebrum and Internal Organs in Animal Development in the Post-Uterine Stage.

Orig Pub : Sb stud. rabot. Yaroslavsk. s. kh. in-ta, 1956, No 1, 106-109

Abstract : Internal organs -- the cerebrum, heart, spleen, lungs, kidney, stomach, pancreas, liver, and intestines -- of rabbits were weighed immediately after birth and at the age of 10 days, 1 month, 4 months, and as adults. Correlations are noted in the growth of individual organs.

Card 1/1

RYTINA, K.

"Particle accelerators" by M.S.Livingston, J.P.Blewett. Reviewed by K.Rytina. Jaderna energie 10 no. 3:108-109 Mr '64.

"Tables of range and rate of energy loss of charged particles of energy 0,5 to 150 MeV " by C.Williamson, J.P.Boujot. Reviewed by K.Rytina. Ibid.:110

RYTINA, K.

Conference on the use of charged particle accelerators in radiation chemistry. Jaderna energie 9 no.8:271-273 Ag '63.

RYTINA, K.

Program of the development of high power accelerators in the United States. Jaderna energie 6 no.5:179 My '60.

RYTINA, Karel

Soviet industrial linear accelerators. Jaderna energie 9 no.7: 235 Jl '63.

1. Ustav vakuove elektroniky, Ceskoslovenska akademie ved, Praha.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

RYTINA, K.

"Ion and electron accelerator" by C. Simane and M. Seidl. Reviewed by K. Rytina. Jaderna energie 6 no.3:79 Mr '60.

RYTINA, Karel

Czechoslovak industrial betatron 15 MeV. Jaderna energie 4 no.4:85-92 Ap '58.

1. Vyzkumny ustav pro vakuovou elektrotechniku, Praha.

RYTINA, K.

Soviet electron accelerator NA 3 MeV, Jaderna energie 6 no.5: 179 My '60.

Z/037/60/000/005/044/056
E192/E382

AUTHOR: Rytina, K.

TITLE: Czechoslovak Betatron for 15 MeV and its Characteristics

PERIODICAL: Československý časopis pro fysiku, 1960, No. 5, p. 484

TEXT: The constructional details of a betatron designed for industrial flaw detection are described. The technical parameters of the betatron and its principal characteristics are given. The application of the device and the results obtained by it are discussed.

ASSOCIATION: Ústav vakuové elektroniky ČSAV, Praha (Institute for Vacuum Electronics of ČSAV, Prague)

Card 1/1

KAURICHEV, I.S., dotsent, kand.sel'skokhoz.nauk; NOZDRUNOVA, Ye.M., kand. biolog.nauk; RYTIKOVA, M.N.

Formation of iron organic compounds in gley soils under the influence of aqueous extracts of vegetable residues. Izv.TSKhA no.3:193-200 '59. (MIRA 12:10)
(Iron organic compounds) (Soil formation)

RYTIRZH, Otakar [Rytir, O.], general-polkovnik

Together forever. Komm. Vooruzh. Sil 46 no.8:74-75 Ap '65.
(MIRA 18:6)

1. Pervyy zamestitel' ministra natsional'noy oborony Chekhoslovatskoy Sotsialisticheskoy Respubliki, nachal'nik General'nogo shtaba Chekhoslovatskoy Narodnoy Armii.

RYTIRZH, Otakar, general-leytenant

Czechoslovakia People's Army is fifteen years old. Voen. vest. 39 no.10:14-18 O '59. (MIRA 13:2)

1. Pervyy zamestitel' ministra natsional'noy oborony i nachal'nik general'nogo shtaba chekhoslovatskoy narodnoy armii.
(Czechoslovakia--Army)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

RYTITSKIY, Ya. B., KRAS'NOSEL'SKIY, M. A.

Spaces, Generalized

Linear integral operators in Orlicz spaces. Dokl. AN SSSR, 35, no. 1, 1952

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

GOL'DFARB, D.M.; RYTIZH, V.; KUZNETSOVA, V.N.; NESTEROVA, G.F.

Induction of h-mutations of the phage T2 by nitrous acid and hydroxylamine. Genetika no.2:3-12 Ag '65. (MIRA 18:10)

1. Institut epidemiologii i mikrobiologii imeni N.F. Gamaleĭ, AMN SSSR, Moskva.

RYTKA, Jerzy; MUHAWSKI, Krzysztof

Studies on latent iron deficiency in blood donors. Polskie arch. med. wewn. 31 no.10:1369-1374 '61.

1. Z Zakladu Biochemii Kierownik: doc. dr med. K. Zakrzewski Instytutu Hematologii Dyrektor: doc. dr med. A Trojanowski.
(ANEMIA HYPOCHROMIC diag) (BLOOD DONORS)

JESIONOWSKI, Mieczyslaw; RYTLOWA, Wanda

Abscesses of the maxillary sinus. Czas. stomat. 18 no.12:1419-1421 D '65.

WOJCIECHOWSKA, Krystyna; RYTLOWA, Wanda

Incomplete Sturge-Weber syndrome. Czas. stomat. 18 no.3: 251-255 Mr '65.

1. Z Oddzialu Stomatologii Studium Doskonalenia Lekarzy Akademii Medycznej w Warszawie; z Oddzialu Chirurgii Szczekowej PSK Nr.1. w Warszawie (Kierownik Kliniki i Ordynator Oddzialu prof. dr. med. F. Bohdanowicz).

RYTLOWSA, J.

RYTLOWSA, J. Achievements in impregnation of lumber for use by the railroads of the USSR. p. 366.

Vol. 7, No. 10, Oct. 1955.
PRZEGLAD KOLEJOWY
TECHNOLOGY
Warszawa, Poland

So: East European Accession, Vol. 5, No. 5, May 1956

RYTOV, A., general-polkovnik aviatsii

Title of a Communist obliges. Av. i kosm. 48 no.10:4-8 O '65. (MIRA 18:11)

RYTOV, A., general-polkovnik aviatsii

Communists are in front. Av.i kosm. 44 no.2:7-12 '62.
(MIRA 15:3)

(Russia--Air force)
(Communist Party of the Soviet Union--Party work)

RYTOV, A., general-polkovnik aviatsii

Regimental political officer is a first-class pilot. Av. i kosm. 47 no.4:40-46 Ap '65. (MIRA 18:4)

RYTOV, A., general-polkovnik aviatsii

Educated by the party. Av. i kosm. 47 no.5:21-26 My '65.
(MIRA 18:4)

RYTOV, A., general-polkovnik aviatsii

Honor and conscience of a Soviet air pilot. Av. i kosm. 45 no.11:2-7 '62. (MIRA 15:11)
(Air pilots)

RYTOV, A., general-leytenant aviatsii.

Guarding the native sky. Kryl. rod. 9 no. 7:2-4 Jl '58.(MIRA 11:7)

1. Zamestitel' nachal'nika Glavnogo politicheskogo upravleniya Sovetskoy Armii i Voyenno-Morskogo Flota.
(Russia--Air force)

85-58-7-4/45

AUTHOR: Rytov, A., Lieutenant General of Aviation, Deputy Chief of the Main Political Administration of the Soviet Army and Navy

TITLE: Guarding the Skies of the Homeland (Na strazhe rodnogo neba)

PERIODICAL: The author reviews the record of Soviet Military Air Forces on the eve of the 25th Anniversary of the USSR Air Fleet Day, attributing their achievements to the leadership of the Communist Party of the Soviet Union. He states that the decisions of the October [1957] Plenum of the Central Committee of the KPSS have improved the leadership of the troops and the quality of military training and education, and have stimulated party-political work. The results are demonstrated in the records of outstanding personalities such as Maj Chekulya, military pilot 1st class, a master of maneuvers and tactics and of all-weather flying, holder of the Orders of Lenin, Red Banner and Red Star, and top squadron commander of his unit. Novikov, military pilot

1st class, commands a sub-unit consisting largely of pilots 1st class who have a record of flying 15 years without an accident, of excellent performance under difficult weather conditions and of accurate markmanship at night and through clouds. Other personalities include Capt of Tech Services Nikulin, former mechanic in the crew of the legendary Nikolay Gastello; Engr Capt Maryakhin and Galushkov; Maj of Tech Services Kostin; Sen Tech Lt Voronin, and young engineers and recent honor graduates of the Voyenno-Vozdushnaya inzhenernaya akademiya imeni professor N. Ye. Zhukovskogo (Military-aviation and Engineering Academy imeni Professor N. Ye. Zhukovskiy) such as officers Trubetskiy, Bebekin, Kobel'kov and Kashin. M. P. Devyatayev, Hero of the Soviet Union; officers Vinogradov and Litvin, secretaries at the VLKSM offices; Sen Lt Kolodin, sportsman and secretary of the Komsomol organization, holder of the Red Star, recently accepted as a member of the Communist Party; Valeriy Ryabinin, outstanding student at one of the aviation schools, son of the 1941 hero-pilot Lt Peter Ryabinin; Sen Lt Viktor Gastello, (son of Nikolay Gastello),

secretary of the Komsomol organization at the Military-aviation Engineering Academy imeni Professor N.Ye. Zhukovskiy. The chief goals of Army and Air Forces are performance of military tasks without accidents, improvement of military skills, and vigilant, alert service. Aviation crews, particularly those of the military-transport units, are often called upon to aid scientific expeditions and for relief operations during national disasters. When the Pamir scientific expedition became stranded without food and equipment, it was assisted by Maj Balashov's unit of heavy planes [sic], which parachuted supplies from altitudes of 7,500 and 8,000 m. Maj Zabiyaki, commander of a technical aviation sector of young pilots, destroyed 3,000 bombs and 3,500 mines which had been left by the Germans at one airdrome during the war. There is 1 photograph, showing Lt Nikolay Bugayev, 1947 Military-aviation school graduate, who is now training on jet fighters.

ASSOCIATION: Glavnoye Politicheskoye Upravleniye Sovetskoy Armii i Voyenno-Morskogo Flota(Main Political Administration of the Soviet Army and Navy)

1. Air force operations--USSR

RYTOV, A., general-polkovnik aviatsii

Be vigilant every day and every hour. Av.i kosm. 46 no.1:35-40 Ja '64. (MIRA 17:3)

RYTOV, A., general-polkovnik aviatsii

The Party is our leader. Kryl.rod. 14 no.6:1-3 Je '63.
(MIRA 16:7)
(Communist Party of the Soviet Union—Party work) (Aeronautics)

RYTOV, A., general-polkovnik aviatsii

Soviet Air Force Day. Komm.Vooruzh.Sil 2 no.15:9-16 Ag '62.
(MIRA 15:7)

1. Zamestitel' nachal'nika Glavnogo politicheskogo upravleniya Sovetskoy Armii i Voyenno-Morskogo Flota.
(Russia--Air force)

RYTOV, A., general-leytenant aviatsii

Our great Lenin insisted on the strict maintenance of military discipline. Komm.Vooruzh.Sil 1 no.7:26-33 Ap '61. (MIRA 14:8)
(Military discipline)

RYTOV, A., general-leytenant aviatsii.

Under the wise leadership of the Communist Party. Kryl. rod. 9 no.2:3-4 F '58. (MIRA 11:2)

(Russia--Armed forces)

RYTOV, A., general-leytenant aviatsii.

The gold fund of Soviet aviation. Kryl.rod. 8 no.6:10-12 Je '57.
(MLRA 10:8)

1.Nachal'nik Politupravleniya Voyenno-Vozhushnykh Sil.
(Russia--Air Force)

RYTOV, A.G., general-leytenant aviatsii.

Communists in the struggle for high-level flight training. Vest. Vozd. Fl. 39 no.4:22-29 Ap '57. (MLRA 10:9)
(Flight training)

RYTOV, A.G., general-leytenant aviatsii.

The commander and the party organization. Vest.Vozd.Fl. 40 no.7:25-32 Jl '57. (MIRA 10:11)
(Communist party of the Soviet Union--Party work)
(Russia--Armed forces)

RYTOV, A.G.

86-2-3/45

AUTHOR: Rytov, A.G., LtGen of the Air Force

TITLE: V.I. Lenin on the Creation and Strengthening of the Soviet Air Force(V.I. Lenin o stroitel'stve i ukreplenii sovetskikh voyenno-vozdushnykh sil)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 2, pp. 9-18 (USSR)

ABSTRACT: The article describes the role Lenin and the Communist Party played in the creation of the Soviet Air Force. According to the author, Lenin from the very beginning understood what an important role the Soviet Air Force was going to have in the future. Some details of Lenin's activities concerning the creation and the use of the Soviet Air Force during the Civil War are given. Furthermore, the article describes how the Communist Party, following Lenin's legacy, has made every effort in order to build up the aviation industry in the Soviet Union. As a result, the Soviet Air Force at the present time is in possession of the best materiel and equipment.

AVAILABLE: Library of Congress

Card 1/1

RYTOV, A.G., general-leytenant aviatsii

For militant agressive propagands, for improving the combat preparedness of our Air Force. Vest. Vozd. Fl. no.3:2-8 Mr '60. (MIRA 13:9)
(Russia—Air Force—Education, Non military)

RYTOV, A.G., general-leytenant aviatsii

Ideological conditioning of aviators. Vest.Vozd.Fl. no.11:6-11 N '60.
(MIRA 13:11)

(Russia—Air Force—Education nonmilitary)

RYTOV, A.G., general-polkovnik aviatsii

Title of communist is duty-bound. Vest.Vozd.Fl. no.8:1-4 Ag '61.
(MIRA 14:8)

(Russia--Air force--Political activity)

RYTOV, A., general-polkovnik aviatsii

Mighty Soviet aviation. Komm. Vooruzh. Sil 46 no.14:24-31 Jl '65.
(MIRA 18:7)

LATYSHEV, G. D.

176

PHASE I BOOK EXPLOITATION SOV/5410

Tashkentskaya konferentsiya po mirnomu ispol'zovaniyu atomnoy energii, Tashkent, 1959.

Trudy (Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy) v. 2. Tashkent, Izd-vo AN UzSSR, 1960. 449 p. Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk Uzbekskoy SSR.

Responsible Ed.: S. V. Starodubtsev, Academician, Academy of Sciences Uzbek SSR. Editorial Board: A. A. Abdullayev, Candidate of Physics and Mathematics; D. N. Abdurasulov, Doctor of Medical Sciences; U. A. Arifov, Academician, Academy of Sciences Uzbek SSR; A. A. Borodulina, Candidate of Biological Sciences; V. N. Ivashev; G. S. Ikramova; A. Ye. Kiv; Ye. N. Lobanov, Candidate of Physics and Mathematics; A. I. Nikolayev, Candidate of Medical Sciences; D. Nishanov, Candidate of Chemical Sciences; A. S. Sadykov, Corresponding Member, Academy of Sciences USSR, Academician, Academy of Sciences Uzbek SSR; Yu. N. Talanin,

Card 1/20

Transactions of the Tashkent (Cont.) SOV/5410

Candidate of Physics and Mathematics; Ya. Kh. Turakulov, Doctor of Biological Sciences. Ed.: R. I. Khamidov; Tech. Ed.: A. G. Babakhanova.

PURPOSE : The publication is intended for scientific workers and specialists employed in enterprises where radioactive isotopes and nuclear radiation are used for research in chemical, geological, and technological fields.

COVERAGE: This collection of 133 articles represents the second volume of the Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy. The individual articles deal with a wide range of problems in the field of nuclear radiation, including: production and chemical analysis of radioactive isotopes; investigation of the kinetics of chemical reactions by means of isotopes; application of spectral analysis for the manufacturing of radioactive preparations; radioactive methods for determining the content of elements in the rocks; and an analysis of methods for obtaining pure substances. Certain

Transactions of the Tashkent (Cont.) SOV/5410

instruments used, such as automatic regulators, flowmeters, level gauges, and high-sensitivity gamma-relays, are described. No personalities are mentioned. References follow individual articles.

TABLE OF CONTENTS:

RADIOACTIVE ISOTOPES AND NUCLEAR RADIATION IN ENGINEERING AND GEOLOGY

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

Transactions of the Tashkent (Cont.) SOV/5410

USSR/Cartography

1946

"Adaptation of the Uniform System of Geographical Coordinates and Heights in Topography and Cartography in the USSR," A V Rytov, 1 p

"Izv Geog" Vol 78, No 5-6

2T79

RYTOV, A. V.

RYTOV, A. V. -- "Multigroup Equation of Triangulation Angles by Conditional Measurement Methods." Sub 30 May 52, Moscow Inst of Engineers of Geodesy, Aerial Photography, and Cartography, Ministry of Higher Education USSR. (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Vechernaya Moskva, January-December 1952

VIROVETS, A.M., professor; BARVENKO, Ye.I., inzhener; BENDOVSKIY, M.K., inzhener; GORELKIN, L.F., inzhener; DRIATSKAYA, E.M., inzhener; ZELICHENKO, L.B., inzhener; IVANOV, V.F., inzhner; KAMENSKIKH, I.G., inzhener; KOSINOV, M.Ya., inzhener; LARIN, D.A., inzhener; MAUERER, V. G. inzhener; NEMTSEV, S.V., inzhener; SOLOV'YEVA, M.V., inzhener; PISHKIN, V.N.; RYTOV, A.V., redaktor; SHLENSKIY, I.A., tekhnicheskiy redaktor.

[Tables of the rectangular coordinates of map frame angles and of map frame and area dimensions of trapezoids of topographic surveys, using the scale 1:5000; for latitudes 36°- 68°. Krasovskii's ellipsoid] Tablitsy priamougol'nykh koordinat uglov ramok, razmerov ramok i ploshchadei; trapetsii topograficheskikh s"emok masshtaba 1:5000. Dlia shirot ot 36°- 68°. Ellipsoid Krasovskogo. Moskva, Izd-vo geodezicheskoi lit-ry, 1953. 909 p. (MIRA 8:4)
(Surveying--Tables, etc.) (Cocrdinates) (Trigonometry--Tables, etc.)

RYTOV, A.V., redaktor; SHLENSKIY, I.A., tekhnicheskiy redaktor.

[Unified rates of output in geodesy and topography; effective July 1, 1954 and obligatory for all ministries and departments concerned with geodesy and topography] Edinye normy vyrabotki na geodezicheskie i topograficheskie raboty. Vvodiatsia v deistvie s pervogo iiulia 1954 goda kak obiazatel'nye dlia vsekh ministerstv i vedomstv, vypolniaiushchikh topograficheskie i geodezicheskie raboty. Moskva, Izd-vo geodezicheskoi lit-ry, 1954
(MLRA 8:1)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodezii i kartografii. (Geodesy) (Topographical surveying)

RYTOV, A.V., kandidat tekhnicheskikh nauk

Multi-group compensation of angles in triangulation by means of conditional measurements. Sbor.st.pogeod. no.7:49-58 '54.
(Triangulation) (MLRA 8:11)

RYTOV, A.V.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

SUDAKOV, S.G.; VIROVETS, A.M.; KURYTSIN, S.V.; PAVLOV, V.F.; PODOBEDOV, N.S.; POPOV, V.A.; RYTOV, A.V.; SOKOLOVA, N.A.; SOKOLOV, M.N.; TROITSKIY, B.V.; SHNEYDERMAN, E.S.

[Instructions for topographical surveying; scale 1:5000 and 1:2000] Instruktsiia po topograficheskoi s"emke v masshtabakh 1:5000 i 1:2000. Moskva, Izd-vo geodezicheskoi lit-ry, 1955. 87 p. [Microfilm]
(MLRA 8:2)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodezii i kartografii.
(Topographical surveying)

IZOTOV,A.A.; PELLINEN,L.P.; RYTOV,A.V., redaktor; KOMAR'KOVA,L.M., redaktor; KUZ'MIN,G.M., tekhnicheskiy redaktor

[Research in terrestial refraction and geodetic leveling methods] Issledovaniia zemnoi refraktsii i metodov geodezicheskogo nivelirovaniia. Moskva, Izd-vo geodezicheskoi litry, 1955. 175 p. (Moscow. TSentral'nyi nauchno-issledovatel'skii institut geodezii, aeros"emki i kartografii. Trudy, no. 102) (MLRA 8:9)

(Leveling) (Refraction, Terrestial)

RYTOV, A.V., kandidat tekhnicheskikh nauk.

Station adjustment of angles and direction. Geod. i kart. no.8:30-38 O '56. (MLRA 10:1)

(Triangulation)

RYTIK, P.G.

Influence of infectious diseases of bacterial and virus etiology on the intensity and duration of immunity to diphtheria. Zhur. mikrobiol., epid. i immun. 32 no.9:141 S '61; (MIRA 15:2)

1. Iz Belorusskogo instituta epidemiologii, mikrobiologii i gigiyeny.
(COMMUNICABLE DISEASES) (DIPHTHERIA)

SHEVAKIN, Yu.F.; RYTIKOV, A.M.; TSIRUL'NIKOV, V.A.

Sizing the dies for drawing rectangular tubes with walls of equal thickness. Izv. vys. ucheb. zav.; tsvet. met. 8 no.3: 148-154 '65. (MIRA 18:9)

1. Moskovskiy institut stali i splavov, kafedra tekhnologii i avtomatizatsii prokatnogo proizvodstva.

S/136/60/000/010/007/010
E073/E335

AUTHORS: Shevakin, Yu.F., Candidate of Technical Sciences and Rytikov, A.M., Engineer

TITLE: New Method of Determining the Friction Coefficient During Cold-rolling of Tubes

PERIODICAL: Tsvetnyye metally, 1960, No. 10, pp. 76 - 78

TEXT: The method described in the paper differs from current methods by the fact that the friction forces were measured which occur as a result of the flow of the material and not as a result of external mechanical movement of the specimen relative to the tool. In contrast with other methods, the contact area during deformation remains constant, which simplifies the calculations. Thus, the dependence of the specific pressure and the friction forces on the conditions of deformation (wall thickness, degree of deformation) is studied independently of other factors. The basic components (Fig. 1) of the instrument are strikers (3) and a mandrel (4) between which a tube specimen (2) is deformed over a limited length. The designs of the strikers and of the specimen may differ. Due to the effect

Card 1/3

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

S/136/60/000/010/007/010
E073/E335

New Method of Determining the Friction Coefficient During Cold-rolling of Tubes

of a blocking bushing the deformation is in a single direction. The friction forces which act on the mandrel are measured by means of a sensor. The forces applied to the strikers during the process of deformation are also measured by sensing equipment; similar friction forces which prevent the flow of the metal occur at the contact surface between the mandrel and the specimen. The force T_3 acting on the blocking bushing is equal and opposite to the sum of the friction forces T_1 and T_2 between the metal in the deformation zone and the strikers (outer wall) and mandrel (inner wall), respectively. Knowing the friction forces, the friction coefficient can be easily determined after determining the normal component of the total pressure. The described instrument permits determining the dependence of the friction forces on the rate of deformation of the material. The method was utilised for investigating the coefficient of copper-steel friction during deformation of

Card 2/3

S/136/61/000/001/009/010
E193/E283

AUTHORS: Shevakin, Yu. F., Candidate of Technical Sciences and Rytikov, A. M., Engineer

TITLE: Non-Uniformity of Deformation in Cold Rolling of Profile Tubes

PERIODICAL: Tsvetnyye metally, 1961, No. 1, pp. 84-85

TEXT: The present paper relates to manufacture of profile (regular and irregular cross-section) tubes with small (6-12 mm) diameter bore by cold rolling in a Pilger-type mill. Analysis of the change of shape of the metal in the instantaneous deformation zone has led to the conclusion that it is impossible to ensure uniform deformation in such tubes made by this process. By choosing a suitable method of roll pass design; one can ensure the preservation of the correct shape of the tube during rolling, but it is not possible to prevent non-uniform deformation of the metal, the degree of non-uniformity depending on the D_h/D_w ratio, where D_h and D_w denote deformation coefficients relating to the height and width of the profile. The presence of residual stresses in the leading (tapered) part of a partly rolled tube and in a finished (not annealed) product, was qualitatively determined by tests in which

Card 1/ 3

S/136/61/000/001/009/010
E193/E283

Non-Uniformity of Deformation in Cold Rolling of Profile Tubes

the parts studied were immersed in an ammoniacal medium. In the case of tubes made of the V1070-1 (L070-1) alloy, cracks appeared already after 2-3 days immersion. This indicated that residual compressive stresses were present in the surface metal layers all round the tube perimeter. These stresses were set up owing to the fact that only the surface layer of the tube had been subjected to heavy deformation. The depth of penetration of deformation depends on the ld/H ratio, where ld is the length of the deformation zone and H the thickness of the rolled metal. In rolling of thick plates or blooms, small (0.2-0.6) magnitude of ld/H leads to lateral spreading, which is associated with non-uniform deformation. In rolling of profile tubes of rectangular cross-section (36 x 16 x 10 Ø mm), the ld/H ratio varies between 0.2 and 0.5 at the beginning and the end of the compression part of the pass, respectively. Since the possibility of lateral spreading during tube rolling is limited, superficial deformation of the metal leads to the onset of additional stresses. One of the parameters which characterizes the degree of non-uniformity of deformation is the minimum length,

OSADA, Ya.Ye., kand.tekhn.nauk; SHEVAKIN, Yu.F., kand.tekhn.nauk; SEMENOV, O.A., kand.tekhn.nauk; SEYDALIYEV, F.S., inzh.; RYTIKOV, A.M., inzh.

Investigating the relationship between pressures in metal caused by cold rolling of pipes and basic parameters of the rolling process. Biul.nauch.-tekh.inform.VNITI no.4/5:81-93 '58. (MIRA 15:1)
(Pipe mills)

SHEVAKIN, Yu.F., kand.tekhn.nauk; RYTIKOV, A.M., inzh.

Cold rolling of shaped pipe. TSvet.met. 31 no.12:70-77 D '58. (MIRA 11:12)

(Rolling (Metalwork)) (Pipe, Copper)

S/136/60/000/02/014/022
E193/E483

AUTHORS: Koshurin, A.V., Engineer;
Shevakin, Yu.F., Candidate of Technical Sciences and
Rytikov, A.M., Engineer

TITLE: Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

PERIODICAL: Tsvetnyye metally, 1960, Nr 2, pp 64-72 (USSR)

ABSTRACT: Aluminium and aluminium alloy tubes of both symmetrical and asymmetrical cross-section are at present extensively made by extrusion through bridge dies. This method is not suitable for extruding copper tubes of this type owing to much higher extrusion temperature and the tendency of copper to oxidize; the former affects the stability of the die, the latter causes difficulties in the formation of good quality weld between two streams of the extruded material. It was for this reason that the method of extruding copper hollow shapes of asymmetrical cross-section through a die with compensating die aperture(s) has been developed, the present paper reporting the work carried out in this connection. The shape of the tube, whose fabrication

S/136/60/000/02/014/022
E193/E483

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

has been investigated, is shown in Fig 1; the range of dimensions (in mm) is given in the table in Fig 1. It follows from the theoretical considerations that if no precautions were taken, section F_I of the tube would emerge from the die at a rate higher than that of section F_{II} (see Fig 1); the tendency of the metal to emerge at a uniform rate would result in an increase of the area F_I and displacement of the mandrel towards the section F_{II}. The rate at which the metal emerges from the die on the side of section F_I can be reduced only by increasing the quantity of metal extruded on this side and this can be attained only by the provision of an additional compensating aperture(s) in the die. To investigate the effect of the area and circumferences of the compensating aperture(s) and its (their) distance from the mandrel axis on the extrusion process, 14 experimental dies were prepared. The design of these dies is illustrated in Fig 2; the distance of the compensating aperture(s) in dies Nr 1 to 8 is shown in

S/136/60/000/02/014/022
E193/E483

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

the drawings; their diameter in the table in Fig 2; the length of the rectangular, compensating aperture in dies Nr 9 to 14 is shown in the drawing, its width (a) and distance from the mandrel axis (b) are given in the table. These dies were used in extrusion tests, carried out at 900 to 960°C, in a 3000 t extrusion press, on billets 300 mm diameter and 400 mm long; the effect of various parameters of the die on the extrusion process was studied by studying their effect on the displacement of the mandrel, Δz. The results of these tests are reproduced in Fig 3; graph "a" shows Δz (mm) plotted against the area of the compensating aperture(s) (F_{np}, mm^2) in dies Nr 1 to 8; graph "b" shows Δz (mm) against the total circumference (Π, mm) of the compensating aperture(s) in dies Nr 4, 7 and 8, the area of the compensating aperture(s) being constant and equal 451 mm^2; graph "v" shows Δz (mm) plotted against the ratio Π/F_{np} in dies Nr 1 to 8, the difference of the areas $F_{II} - F_I$ being constant and equal 423 mm^2;

S/136/60/000/02/014/022
E193/E483

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

finally, graph "g" shows Δz (mm) plotted against the distance (l, mm) between the compensating aperture and the mandrel axis in dies Nr 9 to 14, for two areas of the compensating aperture: F_{np} = 783 mm^2 (upper curve) and F_{np} = 1020 mm^2 (lower curve). It was established on the basis of these results that the areas of the compensating aperture, F_{np}, is given by the following general formula:

$$F_{np} = (F_{II} - F_I) \cdot \frac{\Pi_I + \Sigma\Pi_{np}}{II} \qquad (1)$$

where: $\Sigma\Pi_{np}$ - sum of the circumferences of the compensating aperture(s) (mm); Π_I - circumference of part F_I of the cross-section of the extruded shape (mm); Π_{II} - circumference of part F_{II} of the cross-section of the extruded shape (mm). The size of the compensating aperture of a circular shape is given by the formula

Card 4/9

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

$$D_{np} = 2a\left(1 + \sqrt{1 + \frac{\Pi_I}{\pi \cdot a \cdot n}}\right) \qquad (2)$$

where: D_{np} - diameter (mm) of the compensating aperture; n - number of compensating apertures;

$$a = \frac{F_{II} - F_I}{\Pi_{II}}$$

The application of this formula is illustrated (see the bottom of p 66) by calculating the optimum value of D_{np} for the die shown in Fig 2 (dies Nr 1 to 6), which is found to be equal 24.0 mm; its area of 452 mm^2 corresponds (as can be seen in Fig 3a) to $\Delta z = 0$. The method, described above, was used in designing a series of dies, employed in fabricating a trial batch of hollow shapes as illustrated in Fig 1; the dies were made of steel 3Kh2V8, mandrel of steel E1661. The results showed that, with the aid of

S/136/60/000/02/014/022
E193/E483

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

dies with compensating aperture(s), hollow shapes of the type under consideration can be successfully extruded if the diameter of the hollow (dimension D) is not less than 14 mm. Hollow shapes with $D > 14$ mm were fabricated by extruding blanks which were then reduced to the required size by cold rolling. The problems, associated with the latter operation, are discussed in the second part of the present paper which is concerned mainly with the design of the roll pass for this application. Fig 4 shows (a) the deformation zone and (b) the horizontal projection of the areas of contact in rolling the hollow shape of the cross-section shown in Fig 1. The analytical solution of the roll pass design was based on two fundamental conditions: (1) equality of the total deformation of contours I and II (see Fig 1); (2) equality of the horizontal projections of the areas of contact between metal and the top and bottom rolls. After deriving the necessary formulae, the authors show how they are applied in

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

practical calculations for the design of both open and closed passes. The linear projection of the pass is shown in Fig 5a, Fig 5b showing the variation of the shape of the groove (closed pass) along its working length (sections 0^1, 4 and 9 on the linear projection); the dimensions of the pass at sections 0^1 - 9 are tabulated below Fig 5. The shape of the groove in open pass is shown in Fig 6; the dimensions of this pass in sections 0^1 - 9 are given in the accompanying table. (The taper of the mandrel in both cases is given by $2 \operatorname{tg}\alpha = 0.0284$.) Rolls of this design were used for making hollow shapes with D = 12 mm; a rolling mill, type "Meer" - 2 1/2, with the returning mechanism disconnected, was used for this purpose. The distribution of the total pressure (P_{Σ}, t) exerted by metal on the rolls along the working part of the groove (l_p, mm) is shown in Fig 7 for both the closed (graph a) and open (graph b) passes; curves 1 and 2 correspond to the forward and reverse runs respectively. Fig 8 shows how the cross-section of the tube changes when passing

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

through the rolls with (A) open and (B) closed passes. In order to study the flow of metal during rolling, aluminium pins were inserted in the blanks. X-ray photographs of sections of the tubes before (a) and after (b) rolling in both open (photograph I) and closed (photograph II) passes, reproduced in Fig 9, show that practically no distortion of the pins occurred during rolling, thus confirming the validity of the principles on which the present authors based their calculations, and proving that calculations starting from the external geometry on the hollow shapes of asymmetrical cross-section alone cannot give the correct solution. After rolling, the tubes (30 to 40 m long) were coiled having first passed through two dies: the first die removed the surface imperfections (fins, burrs etc), the second die acting as the sizing die. (The authors point out, in this connection, that passing the tube through the first die is less likely to affect the roundness of the hollow in case of tubes rolled in

S/136/60/000/02/014/022
E193/E483

Mastering the Technique of Manufacturing Hollow Shapes of Asymmetrical Cross-Section

a closed pass since, in this case, the fins are not situated opposite the hollow.) After concluding that the method described in the present paper can be used for designing roll passes for rolling asymmetrical sections with hollows of any shape (square, rectangular) from blanks with circular hollows, they point out that although hollow shapes with asymmetrical cross-section can be also made by rolling blanks of symmetrical cross-section, a portion of the material being cut off in the course of rolling (see Fig 10), the disadvantage of this method lies in that it is more likely to give rise to surface defects (laps). There are 10 figures, 4 tables and 5 Soviet references.

ASSOCIATIONS: Zavod "Krasnyy Vyborzhets" ("Red Elector" Plant)
Moskovskiy institut stali (Moscow Steel Institute)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

S/136/61/000/004/005/006
E193/E183

AUTHORS: Shevakin, Yu.F., Candidate of Technical Sciences, and Rytikov, A.M., Engineer

TITLE: Means of Further Increase in the Productive Capacity of Cold Tube Reducing Mills

PERIODICAL: Tsvetnyye metally, 1961, No. 4, pp. 51-58

TEXT: As a result of improvements in the roll pass design and rolling techniques (Refs. 1, 2) the productive capacity of cold reducing mills has increased to such an extent that cold reducing can now compete with cold drawing. However, analysis of operational data indicates that the productive capacity of cold reducing mills could be further increased by 20-30%. In the present paper, an attempt is made analytically to establish the means by which this increase can be attained and to provide a theoretical basis for determining the maximum productive capacity of a mill either from the characteristics of the mill or from the properties of the metal rolled. The argument presented by the authors is based on the relationship between the roll pass design and various parameters of the reducing process. The working part of the pass,

Card 1/7

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

S/136/61/000/004/005/006
E193/E183

Means of Further Increase in the Productive Capacity of Cold Tube Reducing Mills

L_p, can be represented as $L_p = \ell_o + \ell_r + \ell_p + \ell_k$, where ℓ_o, ℓ_r, ℓ_p and ℓ_k denote the lengths of the compression, reducing, pre-finishing, and sizing zones, respectively. At the same time, $\ell_k = m\mu_\Sigma \Pi_2$, and $\ell_p = m\mu_\Sigma \Pi_1$, where m is the magnitude of feed, μ_Σ is the total elongation, Π_2 is the coefficient of reduction of the wall thickness, and Π_1 is the coefficient of reduction of the tube diameter. When the productive capacity of the mill is increased, ℓ_o decreases, owing to an increase in ℓ_p and ℓ_k. Correspondingly, the roll pressure increases and there is a decrease in, so-called, divisibility of deformation. Consequently, ℓ_o can be determined starting either from the maximum permissible roll pressure or from minimum divisibility of deformation. The coefficient of divisibility of deformation, n_d, is given by $n_d = V_K/V_m$, where V_K is the volume of the working cone in the compression zone of the pass, and V_m is the volume of

Card 2/ 7

S/136/61/000/004/005/006
E193/E183

Means of Further Increase in the Productive Capacity of Cold Tube Reducing Mills

the metal feed which is given by the product mF_z, where m is the feed and F_z is the cross-section area of the stock. After deriving an approximate formula for n_d, the present authors discuss the effect of n_d on the plasticity of the metal rolled. It is stated that fracture of plastically deformed metal is caused by tensile stresses set up in certain volumes of the metal. In the case of cold reducing, additional tensile stresses which can, and do, lead to fracture of the metal are set up in the section of the tube in the outlet of the pass, where the wall of the tube is subjected to forced elongation. (These sections can be referred to as out-of-contact sections since it can be assumed that they touch neither the mandrel nor the surface of the pass). At a certain value of n_d, these tensile stresses become sufficiently high to cause fracture of the metal. There is a value of n_d at which no fracture of metal yet occurs, but which when further decreased, causes a decrease in the plasticity of the metal; this is the minimum permissible value of n_d which is denoted by $n_{d_{min}}$.

Card 3/7 ...-(ANPT-75) mill through a pass

S/136/61/000/004/005/006
E193/E183

Means of Further Increase in the Productive Capacity of Cold Tube Reducing Mills

63 x 9 — 38 x 3 mm, transverse cracks were formed on the tube surface, when deformation of 78%, l_0 = 259 mm, and m = 12-13 mm were used, which corresponded to n_d = 7.1-7.6. In cold-reducing of copper tubes on the KhPT-75 mill through a pass 68 x 4 — 42 x 1 mm (reduction of 84%), cracking occurred at m = 14-15 mm, which corresponded to n_d = 5.1-5.5. Since with decreasing $n_{d_{min}}$ the maximum productive capacity of the mill increases, the authors discuss the possible means of reducing the magnitude of $n_{d_{min}}$, and suggest the following measures. (1) The tube should be turned not once, but twice, during one rolling cycle. The effectiveness of this expedient has been proved experimentally. (2) The relative deformation on the consecutive deformation regions should vary in the same manner as the elongation δ, and the reduction of area, ψ, of the metal, so that the relative deformation never exceeds δ and ψ which, of course, decrease as the metal work-hardens while the tube is being reduced. (3) The length of the compression zone,

S/136/61/000/004/005/006
E193/E183

Means of Further Increase in the Productive Capacity of Cold Tube Reducing Mills

β_0, of the pass should be increased. This can be achieved by using a mandrel with a small taper which makes it possible to decrease β_k. In this connection, it is stated that in order further to reduce β_k, to increase the life of the rolls, and to improve the quality of the tubes, a process was developed in which cold-reducing was combined with drawing through a die attached to the cold-reducing mill. Using the formula derived in the present paper, the authors calculated the maximum productivity of various cold-reducing mills, as determined by the maximum permissible roll pressure. The following results were obtained: 360-540 m/h for alloy L070-1; 475 m/h for alloy L62 (L62); 695-790 m/h for copper. When the maximum productivity of the same mills was calculated starting from the properties of the metal rolled (as determined by $n_{d_{min}}$), the results obtained were: 320-350 m/h for alloy L070-1; 348 m/h for alloy L62; 390-394 m/h for copper. It will be seen that the productive capacity of a cold reducing mill is limited not by the permissible roll pressure, but

S/136/61/000/004/005/006
E193/E183

Means of Further Increase in the Productive Capacity of Cold Tube Reducing Mills

by the plasticity of the metal rolled. Consequently, it would appear that the present cold-reducing mills are overdesigned and that mills of much lighter construction could, and should, be used. Acknowledgements are made to L.M. Radchenko and N.N. Voronin, who participated in this work.
There are 6 figures, 3 tables and 7 Soviet references.

ASSOCIATION: Moskovskiy institut stali
(Moscow Steel Institute)

Card 7/7

SHEVAKIN, Yu.F., kand.tekhn.nauk; RYTIKOV, A.M., inzh.

Nonuniform deformation during the cold rolling of shaped pipes. TSvet. met. 34 no.1:84-85 Ja '61. (MIRA 17:3)

1. Moskovskiy institut stali.

SOV/136-59-4-11/24

AUTHORS: Shevakin, Yu.F., Candidate of Technical Sciences, Rytikov, A.M., Sharov, I.Ye., Butomo, D.G., Koshurin, A.V., Sergeyeva, Z.L., Engineers

TITLE: Comparison of the Efficiency of Tube Production from Non-Ferrous Metals and their Alloys by Cold-Rolling and by Drawing Methods (Ekonomicheskaya effektivnost' proizvodstva trub iz tsvetnykh metallov i splavov kholodnoy prokatkoy po sravneniyu s volocheniyem)

PERIODICAL: Tsvetnyye metally, 1959, Nr 4, pp 57-63 (USSR)

ABSTRACT: Opinion was divided on the relative merits of the different methods of tube production, therefore the present investigation was carried out. All sizes of tubes were tried by the two methods. It was shown that output from cold-rolling was 10-25% higher than that from drawing (table 1). The machine-hours and man-hours for cold-rolling were shorter than for drawing (table 2). Table 3 shows the increase in production by cold-rolling with better equipment. By cold-rolling with modern equipment the machine-hours and man-hours could be cut by two in the production of copper tube. The economy in

Comparison of the Efficiency of Tube Production from Non-Ferrous Metals and their Alloys by Cold-Rolling and by Drawing Methods

this case was 224 roubles per ton and in other cases varied from 165 to 374 roubles per ton. The number of operations in the copper tube production was reduced from 27 to 18. The production of condenser tubes in L68 (brass) alloy has been increased from 70-90 to 180-200 m/hr. An advantage of cold-rolling is that deformation can be up to 94% of the initial section. It also allows the manufacture of tubes from L68 without an intermediate temper, giving a tensile strength of 75-77 kg/mm^2 and an elongation of 2.5-3%. For materials which are difficult to deform (e.g. some Ti alloys) cold-rolling is a superior method of tube production as the machinery is cheaper and the number of operations is reduced. At present, work is in hand for a cold-rolling mill which will produce two or three tubes simultaneously.

Comparison of the Efficiency of Tube Production from Non-Ferrous Metals and their Alloys by Cold-Rolling and by Drawing Methods

There are 5 tables and 4 references, 3 of which are Soviet and 1 German.

ASSOCIATIONS. Institut stali; Zavod „Krasnyy Vyborzhets„; Kol'chuginskiy zavod po obrabotke tsvetnykh metallov i splavov (Steel Institute; "Krasnyy Vyborzhets" Works and Kol'chugino Works for Processing of Non-Ferrous Metals and Alloys)

ACCESSION NR: AP4015112 S/0136/64/000/002/0070/0075

AUTHORS: Ry*tikov, A. M.; Shevakin, Yu. F.; Koshurin, A. V.

TITLE: Forces on the ram during tube extrusion.

SOURCE: Tsvetny*ye metally*, no. 2, 1964, 70-75

TOPIC TAGS: Extrusion, extrusion force, tube extrusion, ram, design, upsetting, ram stress, ram compression, ram stretching force

ABSTRACT: Measurements were made of forces applied to 15, 26, 45 and 55 mm. diameter rams used in extruding tubes having 2,3,4, and 6 mm. walls from 150 x 200 mm. copper billets on a 1500 ton horizontal press. On upsetting the billet the forces on the ram increase to a maximum and then decrease as it approaches the die. The upsetting proceeds in two stages characterized by reverse flow of the metal which is progressively retarded by frictional forces until the deformation of the ingot is caused by shearing of the non-upset portion of the billet at the bottom. The nature of the change in stresses on

the ram along the length of the ingot and the position of the maximum stress depends on the ratio of the ram and the container diameter. As the diameter of the ram decreases, the position of the maximum stress shifts in the direction of the die. The total of the stresses on the ram, σ, is the sum of the stresses due to the cutting forces, σ', and the frictional forces, σ'': $\sigma = Z(\sigma' + \sigma'')$, Z being the temperature coefficient accounting for the cooling of the metal (limits of 1.0-1.6). The force on the ram may be expressed by $P = (\pi d^2/4)$. The compression stresses on the ram decrease as its diameter increases, e.g. increasing the diameter from 15 to 55 mm. reduces stresses from 45 to 25 kg/mm^2. Resistance to deformation increases on transition from upsetting to extrusion, and the friction increases until it is the only force on the ram as the metal flows through the die. The forces on the ram are less with a larger diameter ram and a tube with thicker walls. Stretching forces are developed on the ram on removing it at the end of the extrusion. As a result of these investigations a new ram has been constructed (Shevakin, Yu. F., Ry*tikov, A.M. and Koshurin, A.V., inventor certificate No. 143009) comprising the combination of a larger removable ram and a smaller operating ram

ACCESSION NR: AP4015112

which is longer than present rams. "V. A. Petrov and V. I. Polovinkina participated in conducting the experimental work." Orig. art. has: 2 tables, 5 equations and 3 figures.

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 12Mar64 ENCL: 00

SUB CODE: MD, ML NR REF SOV: 006 OTHER: 001

Card 3/3

SOV/137-59-2-4313

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 2, p 283 (USSR)

AUTHORS: Osada, Ya. Ye., Shevakin, Yu. F., Semenov, O. A., Seydaliyev, F. S., Rytikov, A. M.

TITLE: An Investigation of the Roll-separating Pressure as a Function of the Principal Parameters of the Process of Cold Rolling of Pipes (Issledovaniye zavisimosti davleniy metalla pri kholodnoy prokatke trub ot osnovnykh parametrov protsessa)

PERIODICAL: Byul. nauchno-tekhn. inform. Vses. n.-i. trubnyy in-t, 1958, Nr 4-5, pp 81-93

ABSTRACT: The measurements of the roll-separating pressure (RP) were accomplished with the aid of carbon-type gages, mounted within the wedge of the screw-down mechanism, and with the aid of wire resistance strain gages attached to a specially designed wedge in the screw-down mechanism. The following was established: 1) A change in the rate of feed m and in the total elongation μ_{Σ} significantly affects the RP; 2) in order to obtain constant rolling stresses during rolling of identical billets into pipes (P) exhibiting considerable variations in wall thickness, it is imperative that the operating conditions of the

An Investigation of the Roll-separating Pressure as a Function of the (cont.)

rolling mill (the value of the product $m \cdot \mu_{\Sigma}$) be appropriately adjusted; in all other instances when the variations in the wall thickness of finished P's are insignificant, the rolling conditions may be regarded as constant; 3) in the case of the rolling mills KhPT 1-1/2" and KhPT 2-1/2", the RP increases by 31% and 16%, respectively, as the wall thickness of the billets is increased by 36%; 4) increasing the width of roll passes in the range where $D_x/B_x = 0.93 + 0.98$ results in a significant increase in RP; in designing roll passes, all measures should be taken to minimize the width of pass openings as far as possible; 5) increasing the diameter of the P, the dimensions of the billets and the values of the expression $m \cdot \mu_{\Sigma}$ remaining constant, also leads to an increase in the RP.

Ye. T.

SOV/136-58-12-15/22

AUTHORS: Shevakin, Yu.F., Candidate of Technical Sciences and Rytikov, A.M., Engineer

TITLE: Cold Rolling of Shaped Tubes (Kholodnaya prokatka profil'nykh trub)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 12, pp 70 - 77 (USSR)

ABSTRACT: The authors enumerate some disadvantages of recently described (Ref 1) roll-pass designs for producing 18-m long rectangular tubes with a round bore. They state that investigation has enabled a system free from these effects to be devised which has been adopted at the "Krasnyy Vyborzhets" Works, has led to a better billet and enabled the shape and dimensions of the initial billet to be determined. They consider that in rolling shaped profiles, the aim should be to reduce to a minimum non-uniformity of deformation and base their treatment of a rectangular tube with a round bore on certain similarities to the rolling of rectangular-bore rectangular tubes (Figure 1). They split the cross-section of the tube and billet into a series of areas to examine geometrical contours. Deducing the conditions for producing rectangular tubes with minimal ovality from round-bore rectangular billets, the authors show (Figure 3)

the influence on this of wall thickness. They go on to discuss their selection of billet form (Figure 4) and the pass design (Figure 5). The adoption of this pass design increased mill productivity by more than 1.5 times, the load on the mill being simultaneously reduced and better tube dimensions, pass durability and billet pressing were the result. Figure 6 shows the metal pressure in the roll along the length of the groove when rolling copper rectangular 36 x 16 x 16 mm tubes, Figure 7 showing the corresponding deformations. The authors give the pass design (Figure 8) for rolling 16-18 m long square tubes from a round billet and details of the calculations. They go on to consider the applicability of drawing to producing round-bore square tubes, giving several schedules (Tables 1,2) and the pass design for 10 x 10 mm tube with a 6 mm bore. There are 9 figures, 2 tables and 4 Soviet references.

RYTIKOV, A. M.

Cand Tech Sci - (diss) "Study of the process of cold rolling of profile pipe made from non-ferrous metals and alloys." Moscow, 1961. 22 pp; including cover; with diagrams; (Academy of Sciences USSR, Inst of Metallurgy imeni A. A. Baykov); 180 copies; free; (KL, 6-61 sup, 225)

SHEVAKIN, Yu.F., kand.tekhn.nauk; RYTIKOV, A.M., inzh.

Ways of further increasing the performance of mills for the cold rolling of pipe. TSvet. met. 34 no. 4:51-58 Ap '61. (MIRA 14:4)

1. Moskovskiy institut stali.
(Pipe mills)

SHEVAKIN, Yu. F., doktor tekhn. nauk; RYTIKOV, A. M., inzh.;
KASATKIN, N. I., inzh.; MATVEYEV, B. N., inzh.

Determining reductions in the cold rolling of pipe. Sbor. Inst. stali i splav. no.40:413-421 '62. (MIRA 16:1)

(Pipe mills) (Deformations(Mechanics))

RYTIKOV, A. M., inzh.; SHEVAKIN, Yu. F., doktor tekhn. nauk

Basic principles of grooving design for the cold rolling of rectangular pipes of nonferrous metals and alloys. Sbor. Inst. stali i splav. no.40:369-380 '62. (MIRA 16:1)

(Pipe mills) (Pipe, Copper)

MALYSHEV, V.S., gornyy inzhener.; NEKRASOV, O.P., gornyy inzhener.; RYTIKOV, K.M., gornyy inzhener.

Systems of mining thin, flat skarn deposits. Gor. zhur. no.2:14-18 F '57. (MLRA 10:4)

1. Dzhenichkinskoye rudoupravleniya.
(Mining engineering) (Silicates)

SHEVAKIN, Yu.F., kand.tekhn.nauk; RYTIKOV, A.M., inzh.

Importance of mill adjustment in the cold rolling of pipes.
TSvet.met. 31 no.1:81-83 Ja '58. (MIRA 11:2)
(Rolling mills) (Pipe, Copper)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

136-1-17/20

AUTHORS: Shevakin, Yu.F., Candidate of Technical Sciences, and Rytikov, A.M., Engineer.

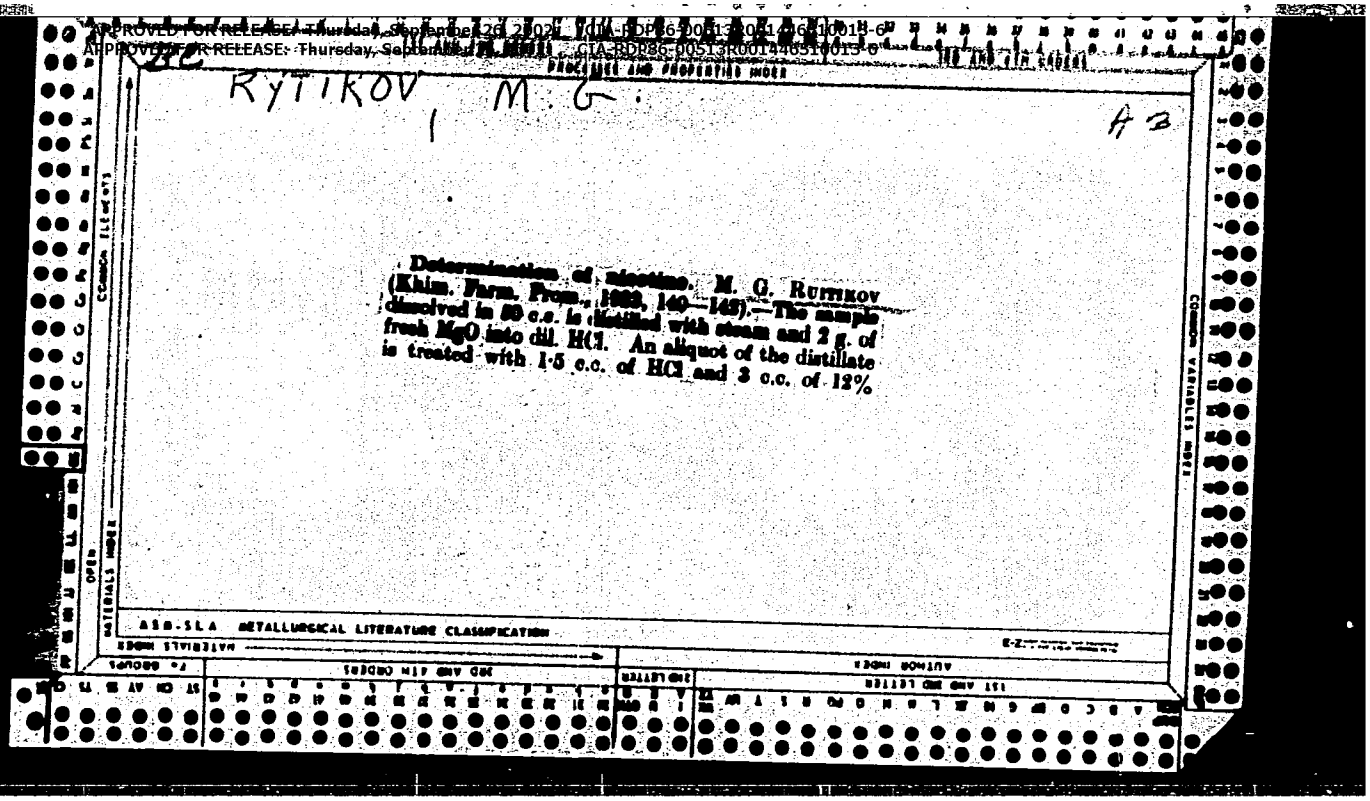
TITLE: The Importance of Mill Adjustment in the Cold Rolling of Tubes (Znacheniye nastroyki stana pri kholodnoy prokatke trub)

PERIODICAL: Tsvetnyye Metally, 1958, No.1, pp. 81 - 83 (USSR)

ABSTRACT: The authors discuss the effects of roll wear and of incorrect setting on the size of the gap round the outside of the pass (Fig.1) and on the metal pressure on the rolls. They go on to consider tube-wall deformation, showing a graph of changes in relative deformation and metal pressure with a tapering gap for the alloy Л68. They state that with aluminium alloys such as Д1, Д16 or А1070, such a gap can lead to the formation of transverse cracks in the tubes. After considering ways of minimising pass wear in working rolls, the authors suggest that wall-thickness tolerances of the tube billets can be increased to ± 15%.
There are 6 figures.

AVAILABLE: Library of Congress

Card 1/1



RYTIKOV, M. G.

42

Determination of nicotine. M. G. Rutikov (Khim. Farm. Prom., 1939, 140—145).—The sample dissolved in 50 c.c. is distilled with steam and 2 g. of fresh MgO into dil. HCl. An aliquot of the distillate is treated with 1·5 c.c. of HCl and 3 c.c. of 12%

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

BYTIKOV, M. G.

BC

PROCESSES AND PROPERTIES INDEX

B-II-2

Purification of nicotine. M. G. Rutikov and L. A[illegible] (Khim. Farm. Prom., 1933, 275—279).—Nicotine is [illegible] with benzine (b.p. 80—110°), dissolved in H_2O, freed from resins, concd., and fractionated. Resins and residues are used to prepare 40% nicotine sulphate. Ch. Abs.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: Thursday, September 26, 2002 | CIA-RDP86-00513R001465510013-6

A study of the chemical composition of chufa nuts. M. G. Ruitikuv. *Schriften zentral. Forschungsinst. Lebensmittelchem.* (U. S. S. R.) 4, 136-44(1933).—The chufa nut, or earth almond, is fairly rich in oil, starch and water-sol. carbohydrates; its edible oil has excellent flavor. If the tech. difficulties of efficient sepn. of shells and kernels at low cost can be solved, the chufa nut will provide a good but cheap substitute for the more expensive nuts in confections and baked goods. Analytical data are given for the sugars, starch and oil of the nuts. J. F. S.

ca

17

Rapid microanalytical method for determination of nicotine in Nicotiana rustica. M. G. Rytikov. *Tabachnaya Prom. S. S. S. R.* **1936**, No. 9, 22–3.—Place 1 g. of finely disintegrated tobacco in a 1000-cc. glass cylinder together with about 1 g. CaO and 3 cc. H_2O. Agitate with a glass rod for 10 min., add 1 g. of burned gypsum and agitate until the mass is homogeneous. Add 20 cc. of pure toluene and shake for one min. with a closed stopper. Filter into a dry 25-cc. beaker, pipet 10 cc. into a conical 25-cc. flask and add 5 cc. H_2O and 5 cc. of 0.2% alc. soln. of litmus. Titrate with 0.1 *N* H_2SO_4 by means of a microburet. The titration is complete as soon as the aq. layers acquire a violet color changing to blue after standing. One cc. of 0.1 *N* H_2SO_4 = 0.0162 g. nicotine.

A. A. Boehtlingk

RYTIKOV, N.

For the good of the Soviet man. Vsem.prof.dvizh.no.23-24:26-29 D '53. (MLRA 7:1)
(Russia--Manufactures)

1. RYTIKOV, N.

2. USSR (600)

4. Kenya - Social Conditions

7. People of Kenya are struggling, V pom. profaktivu, 14, no. 10, 1953.

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

KAURICHEV, I.SI.,kand.sel'skokhozyaystvennykh nauk, dotsent; NOZDRUNOVA, Ye.M., kand.biologicheskikh nauk; RYTIKOVA, M.N.

Qualitative composition of the humus of turf-Podzolic soils in areas of temporarily overwet soils [with summary in English]. Izv. TSKhA no.5:101-113 '60. (MIRA 13:11)
(Podzol) (Humus)

USSR/General Biology - Individual Development. B-4

Abs Jour : Ref Zhur - Biol., No 4, 1958, 14392

Author : Rytikova, M.N., Krasil'nikova, G.M.
Inst :
Title : Mass Correlation of the Cerebrum and Internal Organs in Animal Development in the Post-Uterine Stage.

Orig Pub : Sb stud. rabot. Yaroslavsk. s. kh. in-ta, 1956, No 1, 106-109

Abstract : Internal organs -- the cerebrum, heart, spleen, lungs, kidney, stomach, pancreas, liver, and intestines -- of rabbits were weighed immediately after birth and at the age of 10 days, 1 month, 4 months, and as adults. Correlations are noted in the growth of individual organs.

Card 1/1

RYTINA, K.

"Particle accelerators" by M.S.Livingston, J.P.Blewett. Reviewed by K.Rytina. Jaderna energie 10 no. 3:108-109 Mr '64.

"Tables of range and rate of energy loss of charged particles of energy 0,5 to 150 MeV " by C.Williamson, J.P.Boujot. Reviewed by K.Rytina. Ibid.:110

RYTINA, K.

Conference on the use of charged particle accelerators in radiation chemistry. Jaderna energie 9 no.8:271-273 Ag '63.

RYTINA, K.

Program of the development of high power accelerators in the United States. Jaderna energie 6 no.5:179 My '60.

RYTINA, Karel

Soviet industrial linear accelerators. Jaderna energie 9 no.7: 235 Jl '63.

1. Ustav vakuove elektroniky, Ceskoslovenska akademie ved, Praha.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

RYTINA, K.

"Ion and electron accelerator" by C. Simane and M. Seidl. Reviewed by K. Rytina. Jaderna energie 6 no.3:79 Mr '60.

RYTINA, Karel

Czechoslovak industrial betatron 15 MeV. Jaderna energie 4 no.4:85-92 Ap '58.

1. Vyzkumny ustav pro vakuovou elektrotechniku, Praha.

RYTINA, K.

Soviet electron accelerator NA 3 MeV, Jaderna energie 6 no.5: 179 My '60.

Z/037/60/000/005/044/056
E192/E382

AUTHOR: Rytina, K.

TITLE: Czechoslovak Betatron for 15 MeV and its Characteristics

PERIODICAL: Československý časopis pro fysiku, 1960, No. 5, p. 484

TEXT: The constructional details of a betatron designed for industrial flaw detection are described. The technical parameters of the betatron and its principal characteristics are given. The application of the device and the results obtained by it are discussed.

ASSOCIATION: Ústav vakuové elektroniky ČSAV, Praha (Institute for Vacuum Electronics of ČSAV, Prague)

Card 1/1

KAURICHEV, I.S., dotsent, kand.sel'skokhoz.nauk; NOZDRUNOVA, Ye.M., kand. biolog.nauk; RYTIKOVA, M.N.

Formation of iron organic compounds in gley soils under the influence of aqueous extracts of vegetable residues. Izv.TSKhA no.3:193-200 '59. (MIRA 12:10)
(Iron organic compounds) (Soil formation)

RYTIRZH, Otakar [Rytir, O.], general-polkovnik

Together forever. Komm. Vooruzh. Sil 46 no.8:74-75 Ap '65.
(MIRA 18:6)

1. Pervyy zamestitel' ministra natsional'noy oborony Chekhoslovatskoy Sotsialisticheskoy Respubliki, nachal'nik General'nogo shtaba Chekhoslovatskoy Narodnoy Armii.

RYTIRZH, Otakar, general-leytenant

Czechoslovakia People's Army is fifteen years old. Voen. vest. 39 no.10:14-18 O '59. (MIRA 13:2)

1. Pervyy zamestitel' ministra natsional'noy oborony i nachal'nik general'nogo shtaba chekhoslovatskoy narodnoy armii.
(Czechoslovakia--Army)

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

RYTITSKIY, Ya. B., KRAS'NOSEL'SKIY, M. A.

Spaces, Generalized

Linear integral operators in Orlicz spaces. Dokl. AN SSSR, 35, no. 1, 1952

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

GOL'DFARB, D.M.; RYTIZH, V.; KUZNETSOVA, V.N.; NESTEROVA, G.F.

Induction of h-mutations of the phage T2 by nitrous acid and hydroxylamine. Genetika no.2:3-12 Ag '65. (MIRA 18:10)

1. Institut epidemiologii i mikrobiologii imeni N.F. Gamaleĭ, AMN SSSR, Moskva.

RYTKA, Jerzy; MUHAWSKI, Krzysztof

Studies on latent iron deficiency in blood donors. Polskie arch. med. wewn. 31 no.10:1369-1374 '61.

1. Z Zakladu Biochemii Kierownik: doc. dr med. K. Zakrzewski Instytutu Hematologii Dyrektor: doc. dr med. A Trojanowski.
(ANEMIA HYPOCHROMIC diag) (BLOOD DONORS)

JESIONOWSKI, Mieczyslaw; RYTLOWA, Wanda

Abscesses of the maxillary sinus. Czas. stomat. 18 no.12:1419-1421 D '65.

WOJCIECHOWSKA, Krystyna; RYTLOWA, Wanda

Incomplete Sturge-Weber syndrome. Czas. stomat. 18 no.3: 251-255 Mr '65.

1. Z Oddzialu Stomatologii Studium Doskonalenia Lekarzy Akademii Medycznej w Warszawie; z Oddzialu Chirurgii Szczekowej PSK Nr.1. w Warszawie (Kierownik Kliniki i Ordynator Oddzialu prof. dr. med. F. Bohdanowicz).

RYTLOWSA, J.

RYTLOWSA, J. Achievements in impregnation of lumber for use by the railroads of the USSR. p. 366.

Vol. 7, No. 10, Oct. 1955.
PRZEGLAD KOLEJOWY
TECHNOLOGY
Warszawa, Poland

So: East European Accession, Vol. 5, No. 5, May 1956

RYTOV, A., general-polkovnik aviatsii

Title of a Communist obliges. Av. i kosm. 48 no.10:4-8 O '65. (MIRA 18:11)

RYTOV, A., general-polkovnik aviatsii

Communists are in front. Av.i kosm. 44 no.2:7-12 '62.
(MIRA 15:3)

(Russia--Air force)
(Communist Party of the Soviet Union--Party work)

RYTOV, A., general-polkovnik aviatsii

Regimental political officer is a first-class pilot. Av. i kosm. 47 no.4:40-46 Ap '65. (MIRA 18:4)

RYTOV, A., general-polkovnik aviatsii

Educated by the party. Av. i kosm. 47 no.5:21-26 My '65.
(MIRA 18:4)

RYTOV, A., general-polkovnik aviatsii

Honor and conscience of a Soviet air pilot. Av. i kosm. 45 no.11:2-7 '62. (MIRA 15:11)
(Air pilots)

RYTOV, A., general-leytenant aviatsii.

Guarding the native sky. Kryl. rod. 9 no. 7:2-4 Jl '58.(MIRA 11:7)

1. Zamestitel' nachal'nika Glavnogo politicheskogo upravleniya Sovetskoy Armii i Voyenno-Morskogo Flota.
(Russia--Air force)

85-58-7-4/45

AUTHOR: Rytov, A., Lieutenant General of Aviation, Deputy Chief of the Main Political Administration of the Soviet Army and Navy

TITLE: Guarding the Skies of the Homeland (Na strazhe rodnogo neba)

PERIODICAL: The author reviews the record of Soviet Military Air Forces on the eve of the 25th Anniversary of the USSR Air Fleet Day, attributing their achievements to the leadership of the Communist Party of the Soviet Union. He states that the decisions of the October [1957] Plenum of the Central Committee of the KPSS have improved the leadership of the troops and the quality of military training and education, and have stimulated party-political work. The results are demonstrated in the records of outstanding personalities such as Maj Chekulya, military pilot 1st class, a master of maneuvers and tactics and of all-weather flying, holder of the Orders of Lenin, Red Banner and Red Star, and top squadron commander of his unit. Novikov, military pilot

1st class, commands a sub-unit consisting largely of pilots 1st class who have a record of flying 15 years without an accident, of excellent performance under difficult weather conditions and of accurate markmanship at night and through clouds. Other personalities include Capt of Tech Services Nikulin, former mechanic in the crew of the legendary Nikolay Gastello; Engr Capt Maryakhin and Galushkov; Maj of Tech Services Kostin; Sen Tech Lt Voronin, and young engineers and recent honor graduates of the Voyenno-Vozdushnaya inzhenernaya akademiya imeni professor N. Ye. Zhukovskogo (Military-aviation and Engineering Academy imeni Professor N. Ye. Zhukovskiy) such as officers Trubetskiy, Bebekin, Kobel'kov and Kashin. M. P. Devyatayev, Hero of the Soviet Union; officers Vinogradov and Litvin, secretaries at the VLKSM offices; Sen Lt Kolodin, sportsman and secretary of the Komsomol organization, holder of the Red Star, recently accepted as a member of the Communist Party; Valeriy Ryabinin, outstanding student at one of the aviation schools, son of the 1941 hero-pilot Lt Peter Ryabinin; Sen Lt Viktor Gastello, (son of Nikolay Gastello),

secretary of the Komsomol organization at the Military-aviation Engineering Academy imeni Professor N.Ye. Zhukovskiy. The chief goals of Army and Air Forces are performance of military tasks without accidents, improvement of military skills, and vigilant, alert service. Aviation crews, particularly those of the military-transport units, are often called upon to aid scientific expeditions and for relief operations during national disasters. When the Pamir scientific expedition became stranded without food and equipment, it was assisted by Maj Balashov's unit of heavy planes [sic], which parachuted supplies from altitudes of 7,500 and 8,000 m. Maj Zabiyaki, commander of a technical aviation sector of young pilots, destroyed 3,000 bombs and 3,500 mines which had been left by the Germans at one airdrome during the war. There is 1 photograph, showing Lt Nikolay Bugayev, 1947 Military-aviation school graduate, who is now training on jet fighters.

ASSOCIATION: Glavnoye Politicheskoye Upravleniye Sovetskoy Armii i Voyenno-Morskogo Flota(Main Political Administration of the Soviet Army and Navy)

1. Air force operations--USSR

RYTOV, A., general-polkovnik aviatsii

Be vigilant every day and every hour. Av.i kosm. 46 no.1:35-40 Ja '64. (MIRA 17:3)

RYTOV, A., general-polkovnik aviatsii

The Party is our leader. Kryl.rod. 14 no.6:1-3 Je '63.
(MIRA 16:7)
(Communist Party of the Soviet Union—Party work) (Aeronautics)

RYTOV, A., general-polkovnik aviatsii

Soviet Air Force Day. Komm.Vooruzh.Sil 2 no.15:9-16 Ag '62.
(MIRA 15:7)

1. Zamestitel' nachal'nika Glavnogo politicheskogo upravleniya Sovetskoy Armii i Voyenno-Morskogo Flota.
(Russia--Air force)

RYTOV, A., general-leytenant aviatsii

Our great Lenin insisted on the strict maintenance of military discipline. Komm.Vooruzh.Sil 1 no.7:26-33 Ap '61. (MIRA 14:8)
(Military discipline)

RYTOV, A., general-leytenant aviatsii.

Under the wise leadership of the Communist Party. Kryl. rod. 9 no.2:3-4 F '58. (MIRA 11:2)

(Russia--Armed forces)

RYTOV, A., general-leytenant aviatsii.

The gold fund of Soviet aviation. Kryl.rod. 8 no.6:10-12 Je '57.
(MLRA 10:8)

1.Nachal'nik Politupravleniya Voyenno-Vozhushnykh Sil.
(Russia--Air Force)

RYTOV, A.G., general-leytenant aviatsii.

Communists in the struggle for high-level flight training. Vest. Vozd. Fl. 39 no.4:22-29 Ap '57. (MLRA 10:9)
(Flight training)

RYTOV, A.G., general-leytenant aviatsii.

The commander and the party organization. Vest.Vozd.Fl. 40 no.7:25-32 Jl '57. (MIRA 10:11)
(Communist party of the Soviet Union--Party work)
(Russia--Armed forces)

RYTOV, A.G.

86-2-3/45

AUTHOR: Rytov, A.G., LtGen of the Air Force

TITLE: V.I. Lenin on the Creation and Strengthening of the Soviet Air Force(V.I. Lenin o stroitel'stve i ukreplenii sovetskikh voyenno-vozdushnykh sil)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 2, pp. 9-18 (USSR)

ABSTRACT: The article describes the role Lenin and the Communist Party played in the creation of the Soviet Air Force. According to the author, Lenin from the very beginning understood what an important role the Soviet Air Force was going to have in the future. Some details of Lenin's activities concerning the creation and the use of the Soviet Air Force during the Civil War are given. Furthermore, the article describes how the Communist Party, following Lenin's legacy, has made every effort in order to build up the aviation industry in the Soviet Union. As a result, the Soviet Air Force at the present time is in possession of the best materiel and equipment.

AVAILABLE: Library of Congress

Card 1/1

RYTOV, A.G., general-leytenant aviatsii

For militant agressive propagands, for improving the combat preparedness of our Air Force. Vest. Vozd. Fl. no.3:2-8 Mr '60. (MIRA 13:9)
(Russia—Air Force—Education, Non military)

RYTOV, A.G., general-leytenant aviatsii

Ideological conditioning of aviators. Vest.Vozd.Fl. no.11:6-11 N '60.
(MIRA 13:11)

(Russia—Air Force—Education nonmilitary)

RYTOV, A.G., general-polkovnik aviatsii

Title of communist is duty-bound. Vest.Vozd.Fl. no.8:1-4 Ag '61.
(MIRA 14:8)

(Russia--Air force--Political activity)

RYTOV, A., general-polkovnik aviatsii

Mighty Soviet aviation. Komm. Vooruzh. Sil 46 no.14:24-31 Jl '65.
(MIRA 18:7)

LATYSHEV, G. D.

176

PHASE I BOOK EXPLOITATION SOV/5410

Tashkentskaya konferentsiya po mirnomu ispol'zovaniyu atomnoy energii, Tashkent, 1959.

Trudy (Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy) v. 2. Tashkent, Izd-vo AN UzSSR, 1960. 449 p. Errata slip inserted. 1,500 copies printed.

Sponsoring Agency: Akademiya nauk Uzbekskoy SSR.

Responsible Ed.: S. V. Starodubtsev, Academician, Academy of Sciences Uzbek SSR. Editorial Board: A. A. Abdullayev, Candidate of Physics and Mathematics; D. N. Abdurasulov, Doctor of Medical Sciences; U. A. Arifov, Academician, Academy of Sciences Uzbek SSR; A. A. Borodulina, Candidate of Biological Sciences; V. N. Ivashev; G. S. Ikramova; A. Ye. Kiv; Ye. N. Lobanov, Candidate of Physics and Mathematics; A. I. Nikolayev, Candidate of Medical Sciences; D. Nishanov, Candidate of Chemical Sciences; A. S. Sadykov, Corresponding Member, Academy of Sciences USSR, Academician, Academy of Sciences Uzbek SSR; Yu. N. Talanin,

Card 1/20

Transactions of the Tashkent (Cont.) SOV/5410

Candidate of Physics and Mathematics; Ya. Kh. Turakulov, Doctor of Biological Sciences. Ed.: R. I. Khamidov; Tech. Ed.: A. G. Babakhanova.

PURPOSE : The publication is intended for scientific workers and specialists employed in enterprises where radioactive isotopes and nuclear radiation are used for research in chemical, geological, and technological fields.

COVERAGE: This collection of 133 articles represents the second volume of the Transactions of the Tashkent Conference on the Peaceful Uses of Atomic Energy. The individual articles deal with a wide range of problems in the field of nuclear radiation, including: production and chemical analysis of radioactive isotopes; investigation of the kinetics of chemical reactions by means of isotopes; application of spectral analysis for the manufacturing of radioactive preparations; radioactive methods for determining the content of elements in the rocks; and an analysis of methods for obtaining pure substances. Certain

Transactions of the Tashkent (Cont.) SOV/5410

instruments used, such as automatic regulators, flowmeters, level gauges, and high-sensitivity gamma-relays, are described. No personalities are mentioned. References follow individual articles.

TABLE OF CONTENTS:

RADIOACTIVE ISOTOPES AND NUCLEAR RADIATION IN ENGINEERING AND GEOLOGY

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

Transactions of the Tashkent (Cont.) SOV/5410

USSR/Cartography

1946

"Adaptation of the Uniform System of Geographical Coordinates and Heights in Topography and Cartography in the USSR," A V Rytov, 1 p

"Izv Geog" Vol 78, No 5-6

2T79

RYTOV, A. V.

RYTOV, A. V. -- "Multigroup Equation of Triangulation Angles by Conditional Measurement Methods." Sub 30 May 52, Moscow Inst of Engineers of Geodesy, Aerial Photography, and Cartography, Ministry of Higher Education USSR. (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Vechernaya Moskva, January-December 1952

VIROVETS, A.M., professor; BARVENKO, Ye.I., inzhener; BENDOVSKIY, M.K., inzhener; GORELKIN, L.F., inzhener; DRIATSKAYA, E.M., inzhener; ZELICHENKO, L.B., inzhener; IVANOV, V.F., inzhner; KAMENSKIKH, I.G., inzhener; KOSINOV, M.Ya., inzhener; LARIN, D.A., inzhener; MAUERER, V. G. inzhener; NEMTSEV, S.V., inzhener; SOLOV'YEVA, M.V., inzhener; PISHKIN, V.N.; RYTOV, A.V., redaktor; SHLENSKIY, I.A., tekhnicheskiy redaktor.

[Tables of the rectangular coordinates of map frame angles and of map frame and area dimensions of trapezoids of topographic surveys, using the scale 1:5000; for latitudes 36°- 68°. Krasovskii's ellipsoid] Tablitsy priamougol'nykh koordinat uglov ramok, razmerov ramok i ploshchadei; trapetsii topograficheskikh s"emok masshtaba 1:5000. Dlia shirot ot 36°- 68°. Ellipsoid Krasovskogo. Moskva, Izd-vo geodezicheskoi lit-ry, 1953. 909 p. (MIRA 8:4)
(Surveying--Tables, etc.) (Cocrdinates) (Trigonometry--Tables, etc.)

RYTOV, A.V., redaktor; SHLENSKIY, I.A., tekhnicheskiy redaktor.

[Unified rates of output in geodesy and topography; effective July 1, 1954 and obligatory for all ministries and departments concerned with geodesy and topography] Edinye normy vyrabotki na geodezicheskie i topograficheskie raboty. Vvodiatsia v deistvie s pervogo iiulia 1954 goda kak obiazatel'nye dlia vsekh ministerstv i vedomstv, vypolniaiushchikh topograficheskie i geodezicheskie raboty. Moskva, Izd-vo geodezicheskoi lit-ry, 1954
(MLRA 8:1)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodezii i kartografii. (Geodesy) (Topographical surveying)

RYTOV, A.V., kandidat tekhnicheskikh nauk

Multi-group compensation of angles in triangulation by means of conditional measurements. Sbor.st.pogeod. no.7:49-58 '54.
(Triangulation) (MLRA 8:11)

RYTOV, A.V.

APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R001446510013-6"

SUDAKOV, S.G.; VIROVETS, A.M.; KURYTSIN, S.V.; PAVLOV, V.F.; PODOBEDOV, N.S.; POPOV, V.A.; RYTOV, A.V.; SOKOLOVA, N.A.; SOKOLOV, M.N.; TROITSKIY, B.V.; SHNEYDERMAN, E.S.

[Instructions for topographical surveying; scale 1:5000 and 1:2000] Instruktsiia po topograficheskoi s"emke v masshtabakh 1:5000 i 1:2000. Moskva, Izd-vo geodezicheskoi lit-ry, 1955. 87 p. [Microfilm]
(MLRA 8:2)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye geodezii i kartografii.
(Topographical surveying)

IZOTOV,A.A.; PELLINEN,L.P.; RYTOV,A.V., redaktor; KOMAR'KOVA,L.M., redaktor; KUZ'MIN,G.M., tekhnicheskiy redaktor

[Research in terrestial refraction and geodetic leveling methods] Issledovaniia zemnoi refraktsii i metodov geodezicheskogo nivelirovaniia. Moskva, Izd-vo geodezicheskoi litry, 1955. 175 p. (Moscow. TSentral'nyi nauchno-issledovatel'skii institut geodezii, aeros"emki i kartografii. Trudy, no. 102) (MLRA 8:9)

(Leveling) (Refraction, Terrestial)

RYTOV, A.V., kandidat tekhnicheskikh nauk.

Station adjustment of angles and direction. Geod. i kart. no.8:30-38 O '56. (MLRA 10:1)

(Triangulation)