lengths and voltages actually necessary at the present level of power engineering. In actual fact the lines considered are usually of the highest possible voltage and at the corresponding limit of distance. With transmission lines of this kind it is essential to increase the reserve capacity in the power systems beyond what would be necessary if the lines were fully reliable. If the output transmitted by the single-circuit line is higher than the output of the largest set in the system, it is also necessary to increase the reserve power in the system. There is accordingly a tendency to make the carrying capacity of a transmission line equal the output of the largest available set: indeed, there is a tendency to construct units consisting of boiler-turbine-transformer-transmission line. The use of 400 kV for transmission lines corresponds to transmitted power of 600 to 700 MW; this in its turn corresponds to a level of power engineering at which it is advisable to instal sets of 600 to 700 MW in power stations. From this point of view

 it is still too early to use transmission voltages of

Some Fundamental Problems in the Development of Thermal Electric Power Stations

400 kV. The 400 kV Kuibyshev-Moscow line was constructed both to transmit power from the Volga hydro stations to the central power system and to give technical experience of the use of high-voltage transmission lines. Calculated data comparing the cost of transporting coal on railways and of transmitting power over transmission lines is given in Table 2. The basis of the comparison is explained. It is shown that the transmission of electricity at a voltage of 400 kV results in higher capital costs than railway transport of fuel. The use of 600 kV incurs higher capital costs than the rail transport of any form of coal except very cheap coals over distances of more than 2000 kilometres. Since Table 2 is based on the cheapest kinds of coal, which are most favourable to the use of transmission lines, it is clear that during the period 1965-72 it will be more economic to carry coal by rail than to transmit power over long distances at high voltages. The provision of spare transmission capacity further complicates the position.

SOV/96-59-5-2/19

Some Fundamental Problems in the Development of Thermal Electric Power Stations

As a general principle, up to 1975 it will be most economic to construct power stations near the electrical load centre. Long-distance transmission lines will mainly be required when large hydro-stations are constructed in regions of low electric loading but consideration of the economic justification of such solutions is outside the scope of this article. It is concluded that as the distribution of productive forces within the country is becoming more uniform, the number of large power stations will be increased and they too will be more uniformly distributed over the territory. The growing number of fuel sources in the country make it increasingly necessary to provide sound justification for any long-distance transmission systems constructed. There are 2 tables.

Card 12/12

TYURIN, P.S.

Fecundity of the Issyk-Kul Diptychus dybowskii Kessler (Cyprinidae, Pisces). Trudy Biol.inst.KirFAN SSSR no.3:145-159 '50. (MLRA 8:5)
(ISSYK-KUL--CARP)

TYURIN, P.S.

Morphology and classification of the Issyk Kul carp (Diptychus dybowskii). Trudy Biol.inst. KirFAN SSSR no.4:179-187 '51.
(ISSYK KUL, LAKE--CARP) (MLRA 9:10)

TYURIN, P.S.

Origin of Diptychus dybowskii Kessl. in Lake Issyk-Kul'. Trudy Inst. zool. i paraz. KirFAN SSSR. no.1:99-101 '54. (MLRA 10:6)
(Issyk-Kul', Lake--Carp)

TYURIN, P.S.

Fisheries of Diptychus dybowskii Kessl. on Lake Issyk-Kul'. Trudy Inst. zool. i paraz. KirFAN SSSR no.2:41-56 '54. (MLRA 10:6)
(Issyk-Kul', Lake--Carp)

Tyurin, P. S.

DEMENT'YEV, D.P.; TYURIN, P.S.

Commercially hunted mammals of the Kungey Ala-Tau (within the Kirghiz S.S.R.). Trudy Inst. zool. i paras. KirFAN SSSR no.2: 131-160 '54. (MLRA 10:6)

(Kungei Ala-Tau--Game and game birds)

TYURIN, P.S.

New data on the nesting of Pallas' sand grouse (Syrrhaptes paradoxus Pall.) in gravelly deserts of the Issyk-Kul Depression. Trudy Inst.zool.i paraz.AN Kir.SSR no.4:3-6 '55. (MLRA 10:5)
(Issyk-Kul Province--Grouse)

14-57-6-12594

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 6, p 122 (USSR)

AUTHORS: Tyurin, P. S., Kydyraliyev, A., Tsagarayev, P. T.

TITLE: Results of Acclimatizing Muskrats (Ondatra zibethica L.) to Kirghiz SSR /Rezul'taty akklimatizatsii ondatry (Ondatra zibethica L.) v Kirgizskoy SSR/

PERIODICAL: V sb: Akklimatiz. pushnykh zverey v Kirgizii, Frunze, 1956, pp 19-48

ABSTRACT: In the autumn of 1944, 136 muskrats were released in the eastern part of Lake Issyk-Kul' and 117 in Chernoye Lake, in the Tyup region. . From 1946 to 1954, 2255 of them were trapped and transferred to lakes in the Issyk-Kul', Frunze, Tyan-Shan, Osh, and Dzhalal Abad regions (a list is included). The area occupied by the muskrats increased approximately 10 km per year. Making their way along streams and brooks, they entered

Card 1/3

Results of Acclimatizing Muskrats (Cont.)

the mountains, where they settled in swampy sections. In the upper Turgen' River, a colony of them was discovered 2700 m above sea level. Winter freezing and the formation of multistage ice layers rendered many high mountain swampy areas unsuitable for muskrat habitation. Mountain streams and high mountain lakes without hydrophylic vegetation are likewise unsuitable. Muskrats thrive best in spring-fed lakes east of Lake Issyk-Kul', small steppe brooks, ponds and streams in the Chuya valley. When lakes have steep sides of soft soil, the animals live in burrows; when lakes are shallow, with low banks and abundant vegetation, they live in small houses. The homes they have built in the swamps and lakes of the Issyk-Kul' depression are a combination of hut and burrow. Muskrat runs begin when the ice melts in the lakes. These animals breed two or three times a year. The first mating is in April or May, the second in June. Five young ones comprise an average litter. The muskrat's basic food during the year consists of various parts of rush, Laksmann reeds, and cane; in summer it also eats rushes, floating, pectine, and

14-57-6-12594

Results of Acclimatizing Muskrats (Cont.)

curling pond-weeds, mulberry, and yarrow. Commercial utilization of the muskrat began in 1947. By 1954 the animal produced 36 percent of all fur acquired in Kirghiz. Some 66 percent of the muskrat skins came from Frunze region, and 31 percent from Issyk-Kul' region.

Card 3/3

L. Dinesman

14-57-6-12593

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 6, p 122 (USSR)

AUTHOR: Tyurin, P. S.

TITLE: Acclimatization of the Common White Squirrel (Sciurus vulgaris exalbidus Pall.) in the Spruce-Fir Forests of the Tyan'-Shan /Akklimatizatsiya belki-teleutki v yel'nikakh Tyan'-Shanya (Sciurus vulgaris exalbidus Pall.)/

PERIODICAL: V sb: Akklimatiz. pushnykh zverey v Kirgizii, Frunze, 1956, pp 49-74

ABSTRACT: A group of 209 squirrels was released in the Dzhilanda ravine in Terskey-Alatau /Przheval'skiy rayon (region)/ in 1951, and 73 more were released at the Chalkak into the Burgansa (Naryn range). In 1955, 102 squirrels were caught in the Dzhilanda ravine; these were set free by the upper Chon-Kem in river . In adjacent ravines

Card 1/2

Acclimatization of the Common White Squirrel (Cont.) [illegible]

the animals spread over a 30 km radius from the place where they were first released. Their total number was estimated to be around 1600. The animals made local vertical migrations caused by an uneven distribution of spruce cones over the slopes. Their spring migration lasted from March to April; their autumn migration was over by the middle of November. Squirrels should be introduced on the northern slopes of the Kirghiz Alatay, and, in limited numbers, into the spruce-fir forests in the basin of Lake Issyk-Kul'. A map, showing where the squirrels were released and where they spread, is included.

Card 2/2

L. D.

TYURIN, P.S.

Black grouse (Lyrurus tetrix L.) in Kirghizia. Trudy Inst. zool. i paraz. AN Kir. SSR no.6:97-104 '57. (MIRA 11:3)
(Kirghizistan--Grouse)

SOV-26-58-3-28/51

AUTHOR: Tyurin, P.S., Candidate of Biological Sciences

TITLE: The Grey Squirrel in the Fir Woods of Tyan'-Shan' (Belka-teleutka v yel'nikakh Tyan'-Shanya)

PERIODICAL: Priroda, 1958, Nr 3, pp 101-103 (USSR)

ABSTRACT: Kirghiz fauna is poor with respect to furred animals of trade value. The author reports on attempts to acclimatize the Irtysh grey squirrel (Sciurus vulgaris exalbidus) to the mountain fir woods of Tyan'-Shan'. In the new surroundings, the number of squirrels increased considerably by natural propagation, and the experiment is considered to have been successful.
There are two photos and one map.

ASSOCIATION: Institut zoologii i parazitologii AN Kirgizskoy SSR-Frunze (Institute of Zoology and Parasitology of the AS of the Kirghiz SSR-Frunze)

1. Squirrels--Propagation

Card 1/1

YANUSHEVICH, A.I.; TYURIN, P.S.; YAKOVLEVA, I.D.; KYDYRALIYEV, A.; SEMENOVA, N.I.; IVANOV, A.I., prof., otv.red.; DEMENT'YEV, G.P., prof., red.; ANOKHINA, M.G., tekhn.red.

[Birds of Kirghizistan] Ptitsy Kirgizii. Frunze, Izd-vo Akad.nauk Kirgizskoi SSR. Vol.1. 1959. 227 p. (MIRA 12:12)
(Kirghizistan--Birds)

TYURIN, P.S.

New fur animals, the American mink and nutria, in Kirghizistan.
Trudy Inst.zool.i paraz.AN Kir.SSR no.7:67-76 '59. (MIRA 13:4)
(Kirghizistan--Fur-bearing animals) (Mink) (Coupy)

TYURIN, P.S.

Reproduction time of some vertebrates in Kirghizistan.
Izv.AN Kir.SSR Ser.biol.nauk 1 no.4:161-165 '59.
(MIRA 13:7)
(Kirghizistan--Birds--Habits and behavior)

YANUSHEVICH, A.I.; TYURIN, P.S.; YAKOVLEVA, I.D.; KYDYRALIYEV, A.; SEMENOVA, N.I.; IVANOV, A.I., prof., otv.red.; YANUSHEVICH, A.I., otv.red.; VOZHEYKO, I.V., red.izd-va; AHOKHINA, M.G., tekhn.red.

[Birds of Kirghizistan] Ptitsy Kirgizii. Frunze, Izd-vo Akad. nauk Kirgizskoi SSR. Vol.2. 1960. 271 p.
(MIRA 13:12)

(Kirghizistan--Birds)

TYURIN, P.S.

Recent data on the nesting of the Himalayan eagle owl (Bubo bubo hemachalamus Hume) in the Tien Shan. Izv. AN Kir. SSR. Ser. biol. nauk 3 no.1:25-30 '61. (MIRA 14:12)
(TIEN SHAN--OWLS)

TYURIN, P.S.

Nesting of the pine bunting (Emberiza leucocepahlos GM.) in the Tien Shan. Izv. AN Kir. SSR. Ser. biol. nauk 3 no.1:31-35 '61. (MIRA 14:12)

(TERSKEI ALA-TAU--FINCHES)

TYURIN, P. V.

Factor of natural fish mortality and its significance in the regulation of fisheries. Vop. ikht. 2 no.3:403-427 '62. (MIRA 15:10)

(Fisheries)

TYURIN, P. V. and SOSINOVICH, P. I. OSU-A 25

Materialy k Poznaniyu Neresta Baikal'skogo Omulia = Materials for a study of spawning of the Baikal omul (fish) Izvestiya Biologo-Geograficheskogo Nauchno-Issledovatel'skogo Instituta pri Vostochno-skbirskom Gosudarstvennom Universitete, Vol. 7, part 3-4, 1937. pp: 198-235
Ohio State University Library, Q60-I68, vol. 7, no. 3-4
Russian text, English abstract.
Bibliography: 5 items.
Geographic description of the lower course of the rivers Kichera and Verkhnyaya Angarka near their confluence with Lake Baikal. Map of this region, 1:250,000, long. 109°30' to 110°15' E., lat. 55°20' to 56°10'N.

TYURIN, P. V.

13042

USSR/Fishing Areas 4307.0100 Dec 1947

"Dynamics of Fish Reserves in Lake Il'man' and the Most Important Tasks of the Fish Industry," P. V. Tyurin, 9 pp

"Rybnoye Khoz" Vol XXIII, No 12

Discussion of fishing methods and their effect on reserve supply of fish. Study covers period 1860 - 1946 and is limited to Lake Il'man'. Study is broken down into periods and covers varieties of fish.

IC 13042

TYURIN, I. V.

32643. Promysel minogn v rekakh vostochnoy chasti Finskogo zaliva i voprosy ego uluchsheniya. Izvestiya ... vsesoyuz. Nauch. - issled. In-ta ozer. i rech. ryb. Khoz va, T. XXIX, 1949, s. 69 74, Bibliogr: 13 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

TYURIN, P.V.

Origin of the slow-growing form of Coregonus albula L. in the northwestern lakes of the U.S.S.R. Vop. ikht. no.11:129-135 '58.
(MIRA 12:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ozernogo i rechnogo rybnogo khozyaystva.
(Russia, Northwestern--Whitefishes)

TYURIN, P.V.

Estimating possible fish catches in lakes of the northwestern part of the U.S.S.R. Vop. ikht. no.13:83-89 '59. (MIRA 13:3)

1.Gosudarstvennyy nauchno-issledovatel'skiy institut ozernogo i rechnogo rybnogo khozyaystva (GosNIORKh).
(Russia, Northwestern--Fishes, Fresh-water)

BURMAKIN, Ye.V.; TYURIN, P.V.

Biological classification of fishes. Vop. ikht. no.13:19-25 '59.
(MIRA 13:3)

1.Gosudarstvennyy nauchno-issledovatel'skiy institut ozernogo i rechnogo rybnogo khozyaystva (GosNIORKh).
(Fishes--Classification)

TYURIN, Petr Vladimirovich, doktor biol. nauk, prof.; DEMENT'YEVA, T.F., kand. biol. nauk, retsenzent; KOSSOVA, O.N., red.; SATAROVA, A.M., tekhn. red.

[Biological principles of controlling fisheries in inland bodies of water; methodological manual for studying fish stocks for permanent ichthyological observation centers] Biologicheskie obosnovaniia regulirovaniia rybolovstva na vnutrennikh vodoemakh; metodicheskoe rukovodstvo po izucheniiu rybnykh zapasov dlia postoiannykh ikhtiologicheskikh nabliudatel'nykh punktov. Moskva, Pishchepromizdat, 1963. 118 p. (MIRA 16:10)

(Fisheries)

TYURIN, P.Ya., inzh.; SEROV, Ye.P., kand.tekhn.nauk

Some problems confronting the boiler industry. Teploenergetika 11 no. 1:2-7 Ja '64. (MIRA 17:5)

1. Gosudarstvennyy komitet po koordinatsii nauchno-issledovatel'skikh rabot SSSR i Moskovskiy energeticheskiy institut.

TYURIN, P. Ya., inzh. (Moskva); VAYNSHTEYN, L.M., inzh. (Moskva)

In regard to I.A. Syromiatnikov's article "Principal trends in achieving overall electrification." Elektrichestvo no.4:85-88 Ap.'61. (MIRA 14:8)

(Electrification)
(Syromiatnikov, I.A.)

DUB, Boris Isayevich; TYURIN, P.Ya., redaktor; FRIDKIN, A.M., tekhnicheskiy redaktor.

[High-pressure pipeline fittings] Armatura vysokogo davleniia dlia truboprovodov. Moskva, Gos. energeticheskoe izd-vo, 1954. 183 p.
(Pipe fittings) (MLRA 8:2)

BELINSKIY, Semen Yakovlevich; VUKALOVICH, M.P., red.; KIRILLIN, V.A., red.; KOMAROV, L.P., red.; MEYKLER, M.V., red.; TYURIN, P.Ya., red.; SKVORTSOV, A.A., red.; LARIONOV, G.Ye., tekhn.red.

[Heat and electric power plants and heating from central stations] Teplofikatsiia i teploelektrotsentrali. Moskva, Gos.energ.izd-vo, 1960. 86 p. (Biblioteka teplotekhnika, no.4). (MIRA 13:9)
(Heating from central stations)
(Electric power plants)

Tyurin S.A.

3(2),3(0)

AUTHOR: Pospelov, Ye. M. SOV/6-59-3-15/16

TITLE: Conference on Problems of the Transliteration of Geographic Names (Soveshchaniye po voprosam transkriptsii geograficheskikh nazvaniy)

PERIODICAL: Geodeziya i kartografiya, 1959, Nr 3, pp 76-78 (USSR)

ABSTRACT: The Conference convened by the Presidium of the AS USSR was held from January 26 to 31, 1958 at the Institut geografii AN SSSR (Geographic Institute of the AS USSR). It dealt with the present state of the transliteration of geographic names and with the ways of rapidly eliminating various deficiencies. The Conference was attended by 89 delegates from various organizations and scientific centers. Chairman was the Assistant Director of the Geographic Institute of the AS USSR, Professor E. M. Murzayev. The following lectures were heard: M. B. Volostnova and S. A. Tyurin "Activity in the Field of Transliteration at the Glavnoye upravleniye geodezii i kartografii (Central Administration of Geodesy and Cartography)". There is already a card file with about 1,000,000 cards. A permanent commission for transliteration problems was formed in 1950. M. Kh. Baranov analyzed the general state of transliteration

Card 1/2

of geographic names and suggested that an All-Union Commmittee for the transliteration of geographic names be established. P. K. Makayuda illustrated the activity at the Gidrograficheskaya sluzhba VMF (Hydrographic Service of the Navy) with respect to the transliteration of geographic names. Ye. M. Pospelov reported on "The Situation of Transliteration Abroad". He pointed out that on the whole the foreign transliteration authorities cannot serve as an example, but some positive aspects can and must be made use of. E. M. Murzayev lectured on "Local Geographic Terms". In the course of discussions the necessity became evident of putting order into the problems of transliterating the names of foreign persons into the Russian language, and also into the problem of transliterating Russian and foreign names into the languages of the peoples of the USSR. The Conference decided to ask the Council of Ministers of the USSR that a central coordinating organ be created. It should be entitled to supervise the transliteration of geographic names and names of persons in the USSR and to exert control on the transliteration activity all over the USSR.

TYUKHIN, S. A.

BARANOV, A.N., redaktor; LYSYUK, V.N., redaktor; SHUROV, S.I., redaktor; APRENCHENKO, V.S., redaktor; ITENBERG, I.M., redaktor; KURAKINA, V.I. redaktor; MOSTMAN, S.L., redaktor; SMIRNOVA, A.L., redaktor; TYUKHIN, S. A.; YAKOVLEVA, A.K.; GUREVICH, I.V., tekhnicheskiy redaktor.

[World atlas; index of geographical names] Atlas mira; ukazatel' geograficheskikh nazvanii. Moskva, 1954. 571 p. (MLRA 8:9)

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

TYURIN, S.A.; POPOV, I.V.

On the "Brief glossary of Russian transliteration of Latin American geographic names." Sobr.st.po kart.no.2:76-79 '52. (MIRA 10:12)
(Russian language--Transliteration) (Names, Geographical)

TYURIN, S.A.

A few problems in the spelling of geographic names as related to the rulings on Russian orthography. Geod. i kart. no.6:48-54 Je '57.
(Names, Geographical) (MLRA 10:8)

TYURIN, S.A.

Significant step towards standardizing the spelling of geographic names. Geod. i kart. no.3:53-56 '63.
(MIRA 16:7)

(Names, Geographical)

S

USSR/Human and Animal Morphology - The Skeleton.

Abs Jour : Ref Zhur Biol., No 5, 1959, 21551

Author : Tyurin, S.M.

Inst : Kirov Agricultural Institute

Title : The Problem of Classification of Bone Traumas Depending on the External Shape and Histological Structure of the Bones

Orig Pub : Tr. Kirovskogo s.-kh. in-ta, 1956, 11, No 23, 139-143

Abstract : Through the example of the 1st phalanx of the horse the possibility was shown of classifying traumata depending on the external shape and structure of the bone. In injury of the 1st phalanx cracks and fissures occur in it. Histologically it is shown that in the vicinity of these cracks and fissures

Card 2/2

Abs Jour : Ref Zhur Biol., No 5, 1959, 21551

microscopic fissures are formed along interosteon and interlamellar lines of cohesion. Observations of the phalanx in cases of experimentally produced fissures show that their distribution is specific for the bone of every species of domestic animal or for the bone of the same species but of different age. This characteristic feature is associated with the nature of distribution of bone lamellae and osteons. The structure of the basal phalanx of the horse is adapted to vertical mechanical strains. In artiodactyls injury to the 1st phalanx is rarely observed because of a different distribution of osteons and interosteon lamellae. -- T.P. Vinogradova

TYURIN, S.M. (Ivanovo, 3-ya Mezhevaya ul., 35, kv.2)

Some problems of the histogenesis and age-related changes in the epithelium of the large intestine in man. Arkh.anat.,gist. i embr. 46 no.5:50-57 My '64. (MIRA 18:2)

1. Kafedra gistologii i embriologii (zav. - prof. Ye.A.Kirillov) Ivanovskogo gosudarstvennogo meditsinskogo instituta i kafedra gistologii i embriologii (zav. - chlen-korrespondent AMN SSSR prof. S.I.Shchelkunov) Voyenno-meditsinskoy akademii imeni Kirova.

TYURIN, S.M.

Innervation of the mucosa of the gastroenteric section in mammals.
Trudy Len. ob-va est. 72 no.1:105-107 '61. (MIRA 15:3)
(ALIMENTARY CANAL--INNERVATION)

TYURIN, S.M.

TYURIN, S.M.

Reactivity of the epithelium of the central segment of the gastro-intestinal system in lower vertebrates. Trudy LSGMI 16:229-245 '53. (MIRA 10:8)

1. Kafedra gistologii i embriologii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. kafedroy prof. S.I.Shchelkunov)

(GASTROINTESTINAL SYSTEM, physiology,
regen. of epithelium in v lower vertebrates)
(EPITHELIUM,
gastrointestinal, regen. in lower vertebrates)
(REGENERATION,
gastrointestinal epithelium, in lower vertebrates)

TAURIN, Sergei Petrovich

the U.S.S.R., and economic and social survey, with 8 maps, 13 diagrams and 67 statistical tables. 2d ed., rev. and enl. London, Methuen and co., [1945]. 234p. incl. illus. (maps) tables.

DLC: HC335.T727 1945

SO: Soviet Transportation and Communications, A Bibliograph, Library of Congress, Reference Department, Washington, 1952, Unclassified.

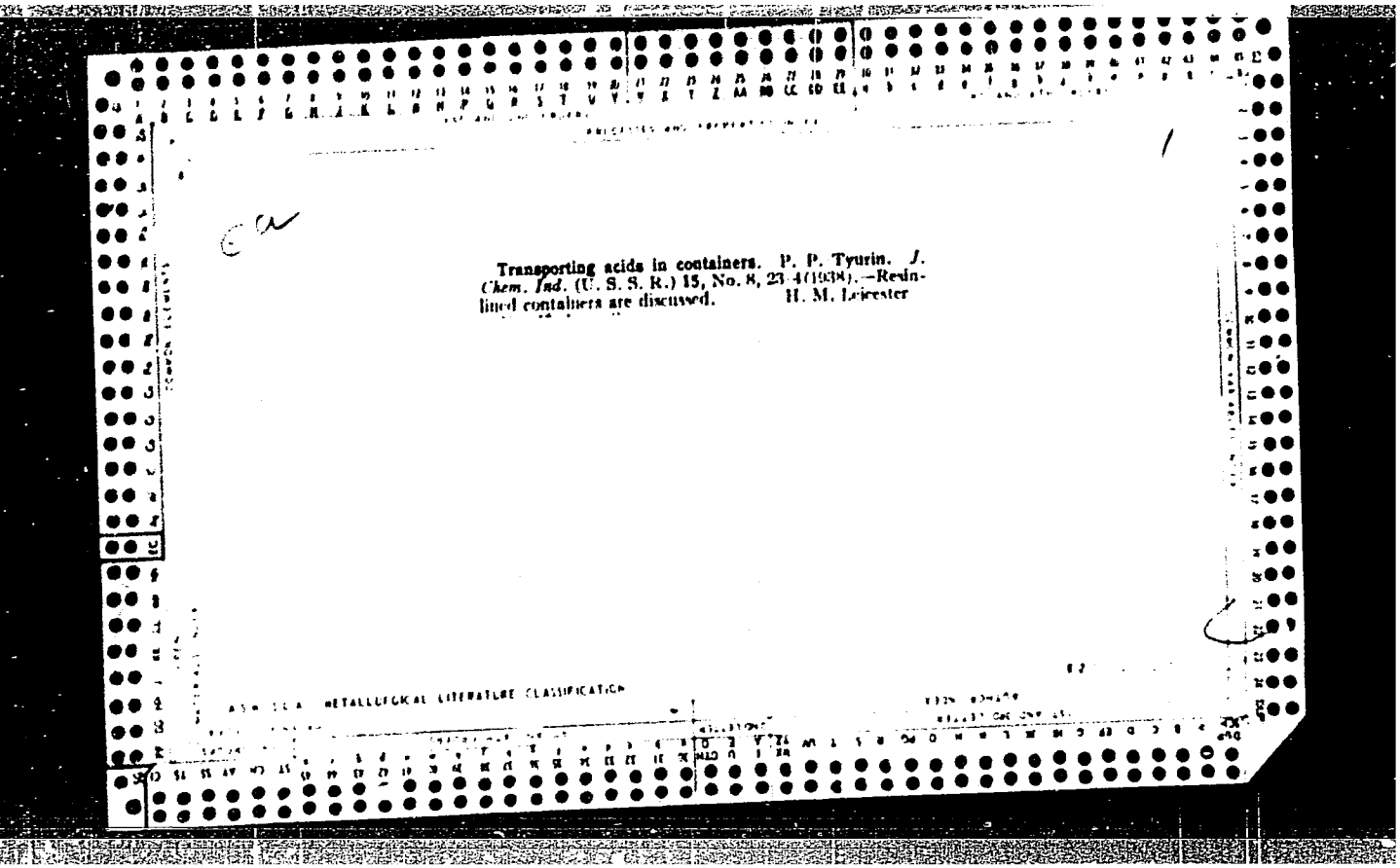
TIURIN, SERGEI PETROVICH.

The U.S.S.R., an economic and social survey, with 8 maps, 16 diagrams and 63 statistical tables. London, Methuen and co., [1944]. 219 p. illus. (maps) diagrs. (1 fold)

Chapter 3, means of communication, gives concise information on most important ports on the Black, Azov, Baltic and Caspian seas, Artic and Pacific oceans (complete with maps). It also contains descrition of rivers included in the waterway system, as well as of the canal system. Brief chapters on highways, railroads and air service give basic information on the main lines of communication. Contains data on postal and telegraph service.

DLC: HC335.T727

SO: Soviet Transportation and Communication, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified



Transporting acids in containers. P. P. Tyurin. *J. Chem. Ind.* (U. S. S. R.) 15, No. 8, 23-4(1938).—Resin-lined containers are discussed. H. M. Leicester

TYURIN, P. V. and SOSINOVICH, P. I. OSU-I 25

Materialy k Poznaniyu Neresta Baikal'skogo Omulia = Materials for a study of spawning of the Baikal omul (fish) Izvestiya Biologo-Geograficheskogo Nauchno-Issledovatel'skogo Instituta pri Vostochno-skbirskom Gosudarstvennom Universitite, Vol. 7, part 3-4, 1937, pp. 198-235.
Ohio State University Library, Q60-168, vol. 7, no. 3-4
Russian text, English abstract.
Bibliography: 5 items.
Geographic description of the lower course of the rivers Kichera and Verkhnyaya Angarka near their confluence with Lake Baikal. Map of this region, 1:250,000 long. 109°30' to 110°15' E. lat. 55°20' to 56°10' N.

(69)

TYURIN, S.M.

Intraorganic innervation of the mucous membrane of the stomach and intestines in mammals. Izv. AN SSSR Ser. biol. 30 no.1:119-122 Ja-F '65. (MIRA 18:2)

1. Ivanovskiy gosudarstvennyy meditsinskiy institut.

KOROTKEVICH, A. V., TYURIN, S. T.

Wine and Wine Making

How to decrease loss of wine during storage. Vin. SSSR. 12 no. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1952. Unclassified.

1. TYURIN, S.T.
2. USSR (600)
4. Wine and Wine Making
7. Determining the average temperature of wine. Vin.SSSR 12 no.10, 1952.

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

KOROTKEVICH, A. V., TYURIN, S. T.

Wine and Wine Making

How to decrease loss of wine during storage. Vin. SSSR. 12 no. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1952, Uncl.

TYURIN, S. T.

Wine and Wine Making - Research

Coordination of scientific work in the field of viniculture,
Vin.SSSR 13, No. 3, 1953

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

USSR / Microbiology - Industrial Microbiology. F

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38412.

Author : Tyurin, S. T.
Inst : Not given.
Title : Viability and Activity Stored of Wine Aerobic Microorganisms When in Hermetically Sealed Vessels.

Orig Pub: Byul. nauchno-tekhn. inform. Vses. n.-i. in-t vinodeliya i vinogradarstva, 1957, No 1, 35-39.

Abstract: No abstract.

Card 1/1 69

TYURIN, S. T. Cand Tech Sci -- "Aging of table and champagne wine stock ~~materials~~ in large hermetic tanks with dosing of oxygen." Yalta, 1960 (Min of Higher and Secondary Specialized Education RSFSR. Mos Technological Inst of Food Industry). (KL, 4-61, 201)

TYURIN, S.T.

Comparative study of the conditions arising from the presence of atmospheric oxygen in dry wines stored in large tanks and barrels. Trudy VNIIViV "Magarach" 9:179-184 '60. (MIRA 13:11)
(Wine--Storage)

TYURIN, Sergey Timofeyevich; MAKHNYKINA, Tamara Alekseyevna

[Rubber packing materials for wine-making equipment] Prokladochnye rezinovye materialy dlia vinodel'cheskogo oborudovaniia. Simferopol', Krym, 1964. 12 p. (MIRA 18:7)

TYURIN, S.T.; PONOMARENKO, R.A.

Results of the determining of the activity of polyphenolase in dry wine materials prepared without the access of air. Trudy VNIIViV "Magarach" 13:60-67 '64. (MIRA 17:12)

TYURIN, S.T.; BAZANOVA, A.I.; IL'CHENKO, B.N.

Results of the study of the sanitary, hygienic and physico-mechanical characteristics of Soviet plastics intended for use in the wine making industry. Trudy VNIIViV "Magarach" 13:149-163 '64. (MIRA 17:12)

TYURIN, S.T.; SUBBOTIN, V.A.

Methods for determining wine losses in evaporation, absorption and wetting. Trudy VNIIViV "Magarach" 13:164-172 '64.
(MIRA 17:12)

TYURIN, Sergey Timofeyevich, kand. tekhn. nauk; BAZANOVA, Adelaida Ivanovna, nauchn. sotr.; IL'CHENKO, Boris Nikolayevich, nauchn. sotr.; AVDEYEVA, A.V., doktor tekhn. nauk, prof., retsenzent; SKURIKHIN, I.M., kand. tekhn. nauk, retsenzent; CHERNYAVSKIY, N.F., inzh.-konstruktor, retsenzent; SEBKO,G., red.; VASIL'YEV, I., red.

[Protective coatings of containers in wine making] Zashchitnye pokrytiia rezervuarov v vinodelii. Simferopol', Izd-vo "Krym," 1965. 103 p. (MIRA 18:5)

1. Zaveduyushchiy laboratoriyey Vsesoyuznogo nauchno-issledovatel'skogo instituta vinodeliya i vinogradarstva "Magarach" (for Tyurin). 2. Laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo instituta vinodeliya i vinogradarstva "Magarach" (for Bazanova, Il'chenko).

POPOV, K.S., kand. tekhn. nauk; GAYVORONSKAYA, Z.I.; UMANETS, V.P.; NILOV, V.I.; VALUYKO, G.G.; OKHREMENKO, N.S.; ZHDANOVICH, G.A.; DATUNASHVILI, Ye.N.; SERBINOVA, N.I.; MARCHENKO, G.S.; KURAKSINA, N.K.; TYURIN, S.T.; TYURINA, L.V.; KRIMCHAR, M.S.; RAZUVAYEV, N.I.; OGORODNIK, S.T.; MIKHAYLOV, S.M.; ZHILYAKOVA, O., red.; GLIKMAN, N., red.; FISENKO, A., tekhn. red.;

[Wine making; manual for the workers of wineries on state and collective farms in the Crimea] Vinodelie; rukovodstvo dlia rabotnikov vinodel'cheskikh zavodov sovkhozov i kolkhozov Kryma. Simferopol', Krymizdat, 1960. 415 p. (MIRA 16:3)
(Crimea--Wine and wine making)

TYURIN, S. T. (USSR)

"Maturation Processes in Dry Wine Material in Hermetically Sealed Reserviors with Controlled Oxygen Contents."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 Aug 1961

TYURIN, S.V.

Heating the GAZ-93 dump truck body for transporting mortars under cold weather conditions [Suggested by S.V.Tiurin]. Mats. i izobr. predl. v stroi. no.6:32-33 '58. (MIRA 11:10)
(Dump trucks) (Mortar--Transportation)

TYURIN, V.

What is going on at the Communist Youth League construction projects today? IUn.tekh. 6 no.9:64-67 S '61. (MIRA 14:10)

1. Rabotnik TSentral'nogo komiteta Vsesoyuznogo Leninskogo kommunisticheskogo soyuza molodezhi.
(Communist Youth League)

TYURIN, V., inzh.

Under carbon dioxide protection. NTO 5 no.12:47-49 D '63.
(MIRA 17:8)

1. Zamestitel' glavnogo redaktora zhurnala "Svarochnoye proizvodstvo".

TYURIN, V.

Modernizing streetcars. Zhil.-kom.khoz.7 no.11:27-29 '57. (MIRA 10:12)

1. Nachal'nik konstruktorskogo byuro Ust'-Katavskogo vagonostroitel'nogo zavoda.

(Ust-Katav--Streetcars)

OKHRIMENKO, Ya.M.; TYURIN, V.A.

Effect of deformation and wear of the sizing instrument on the accuracy and finish of forging surfaces. Kuz.-shtam.proizv. 5 no.3:1-4 Mr '63. (MIRA 16:4)

(Forging)

OKHRIMENKO, Ya.M.; TYURIN, V.A.

Methods of plotting the fields of local nonuniformity of deformation. Izv. vys. ucheb. zav.; chern. met. 8 no.7:108-112 '65. (MIRA 18:7)

1. Moskovskiy institut stali i splavov.

ACC NR: AP6023566 (N) SOURCE CODE: UR/0401/66/000/007/0002/0005

AUTHOR: Tyurin, V. (Engineer; Commander) 17

ORG: none 8

TITLE: Heroes of the underwater orbit [World circumnavigation by submarine]

SOURCE: Starshina-serzhant, no. 7, 1966, 2-5

TOPIC TAGS: submarine, nuclear submarine, long range submarine

ABSTRACT: Over a period of a little more than one and a half months a squadron of Soviet nuclear submarines cruised approximately 40,000 km. During this period the submarine squadron, which included a new submarine, "saw" a lot of transoceanic submarines but avoided meeting them. All submarine search was accomplished with sonar instruments. [WS]

SUB CODE: 15/ SUBM DATE: none

LS

Card 1/1

L 37697-66 EWT(l)/FCC/FSS-2 TT/GW

ACC NR: AP6019600 (A, N) SOURCE CODE: UR/0293/66/004/003/0463/0468

54
B

AUTHORS: Adam, N. V.; Ben'kova, N. P.; Tyurmina, L. O.

ORG: none

TITLE: Geomagnetic map construction from satellite data

SOURCE: Kosmicheskiye issledovaniya, v. 4, no. 3, 1966, 463-468

TOPIC TAGS: geomagnetic measurement, geomagnetic field, harmonic analysis, ~~artificial satellite observation~~ cartography, map, scientific satellite, spaceborne geophysic measurement

ABSTRACT: A map is presented of the total magnetic field intensity at 400 km over the Soviet Union. The data for constructing the map were obtained from measurements from the third artificial earth satellite (1958). The measurements were reduced to the value at 400 km according to the formula

$$T_{400} = T_h + \frac{\Delta T}{\Delta h}(h - 400).$$

An insufficient number of measurements was made to obtain the vertical gradient $\Delta T/\Delta h$ directly. Consequently, the gradients were calculated on the basis of spherical harmonic analysis of world magnetic maps (1955). Details of the analysis and the construction of the map are given, and the accuracy is estimated to be 350 γ. Orig. art. has: 2 figures, 2 tables, and 6 formulas. [04]

SUB CODE: 08/ SUBM DATE: 17Apr65/ ORIG REF: 005/ OTH REF: 001/

Card 1/1 ATD PRESS: 5041 UDC: 550.382:528.067.4

L 04637-67 EWT(m)/EWP(t)/ETI/EWP(k) IJP(c) JD/HW/JH

ACC NR: AP6019842 (N) SOURCE CODE: UR/0182/66/000/002/0001/0004

AUTHORS: Okhrimenko, Ya. M.; Tyurin, V. A.

50
B

ORG: none

TITLE: Forging with increased uniformity of deformation

SOURCE: Kuznechno-shtampovochnoye proizvodstvo, no. 2, 1966, 1-4

TOPIC TAGS: metal deformation, metal forging, metal forming press, metallurgic machinery, alloy, lead, aluminum forging, alloy / EI617 alloy

ABSTRACT: The effect of different forging block profiles on the strength and homogeneity of forged specimens was studied. The study was carried out on the installation shown schematically in Fig. 1 (see Fig. 1). Three different metal specimens were studied: 1) alloy EI617 and an aluminum alloy, 2) lead specimens, and 3) aluminum specimens at room temperature. The experimental data were treated after the method of Ya. M. Okhrimenko and V. A. Tyurin (Metodika postroyeniya poley mestnoy neravnomernosti deformatsii. Izvestiya vuzov. Chernaya metallurgiya, 1965, No. 7). The experimental results are presented graphically (see Fig. 2). It is concluded that the simultaneous use of contoured and flat forging surfaces insures

Card 1/3 UDC: 621.73.032

L 04637-67

ACC NR: AP6019842

0

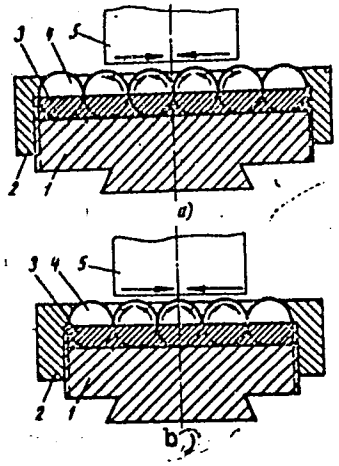


Fig. 1. Experimental instrument. 1 - base; 2 - yoke; 3 - filler; 4 - balls; 5 - specimen. (Arrows indicate the direction of the friction forces during compression.)

Card 2/3

L 04637-67

ACC NR: AP6019842

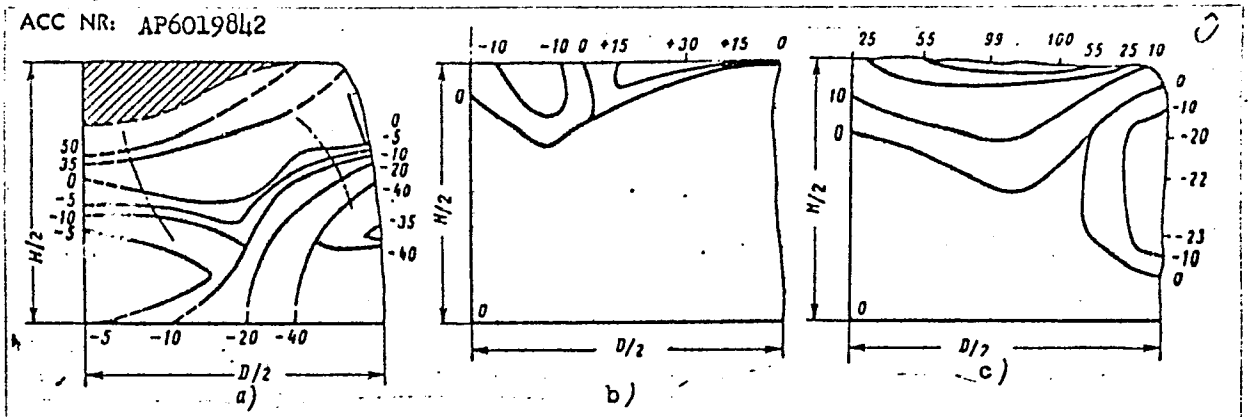


Fig. 2. Topograms of local deformation. a - compression on flat rough plates; b - compression using the instrument with surface projection equal to 0.2 d_t; c - the same with surface projection equal to 0.5 d_t (dashed line indicates the dead zone) where d_t is the ratio of the height of the surface projections to the diameter of the specimen.

nearly homogeneous deformations. Orig. art. has: 6 graphs.

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 001

awm

Card 3/3

GUSEV, Aleksandr Alekseyevich; TYURIN, Vasiliy Alekseyevich; MISHKEVICH, G.I., redaktor; FRUMKIN, P.S., tekhnicheskiy redaktor.

[Reversible blueprinting with SADP-1 and SADP-2 equipment] Dvustoronnee svetokopirovanie na apparatakh SADP-1 i SADP-2. Leningrad, Gos. soiuznoe izd-vo sudostroitel'noi promyshl., 1955. 31 p. (MLRA 9:5)
(Blueprinting)

S/182/63/000/003/001/008
A004/A127

AUTHORS: Okhrimenko, Ya. M., Tyurin, V. A.

TITLE: The effect of the deformation and wear of calibration instruments on the accuracy and surface finish of forgings

PERIODICAL: Kuznechno-shtampovochnoye proizvodstvo, no. 3, 1963, 1 - 4

TEXT: The authors emphasize the fact that the effect of deformation and wear of calibration instruments on the accuracy and surface finish has not been sufficiently studied hitherto. They report on a number of tests that were carried out at the ZIL Plant to find out the degree and extent of calibration-instrument wear and quote in this connection the example of wear of the flat surface of a calibrating plate that, in the course of service life, became concave. It was revealed at the ZIL forging shop that after reduction on the embossing press of 100 steering shaft forgings, the lower plate, characterizing the instrument wear, showed a concavity of 0.01 mm. The authors give a detailed description of wear phenomena on calibration instruments, present a number of graphs

The effect of the deformation .....

and four different schemes according to which, depending on the properties of the material being deformed, the investigated phenomena may take place. There are 7 figures.

Card 2/2

ACC NR: AP7012420 SOURCE CODE: UR/0062/66/000/011/1938/1943

AUTHOR: Nesmeyanov, A. N.; Perevalova, E. G. Tyurin, V. D.; Gubin, S. P.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Metallation of alkylferrocenes

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 11, 1966, 1938-1943

TOPIC TAGS: ferrocene, lithium compound, ferrocenyllithium

SUB CODE: 07

ABSTRACT: The metallation of methyl-, ethyl-, and n-propylferrocene with excess n-butyllithium at room temperature was studied. Mixtures of mono- and dimetallated alkylferrocenes were obtained. The monometallated alkylferrocenes were found to possess a heteroannular structure. The mixture of mono- and dimetallated alkylferrocenes, after carboxylation, were converted to a mixture of mono- and dicarboxylic acids. Metallation of alkylferrocenes proceeded with greater difficulty than that of ferrocene itself. Approximately 2-2.5 times as much of the monometallated alkylferrocene was formed as of the dimetallated derivative. The metallated alkylferrocenes were also used for the synthesis of heteroannular nitroalkylferrocenes by the reaction with propyl nitrate. Nitromethyl-, nitroethyl-, and nitropropylferrocenes were obtained in low

 UDC: 542.91 + 547.1'3 + 546.72

0932 1356

ACC NR: AP7012420

yields. No dinitro-compounds were isolated. Orig. art. has: 3 formulas, 4 tables. [JPRS: 40,422]

2/2

NESMEYANOV, A.N.; PEREVALOVA, E.G.; SHILOVTSEVA, L.S.; TYURIN, V.D.

Ferrocenylmethylation by means of N,N-dimethylaminomethylferrocene and its iodomethylate. Izv.AN SSSR. Otd.khim.nauk no.11:1997-2001 N '62. (MIRA 15:12)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Ferrocene)

S/062/62/000/011/006/021
B101/B144

AUTHORS: Nesmeyanov, A. N., Perevalova, E. G., Shilovtseva, L. S., and Tyurin, V. D.

TITLE: Ferrocenyl methylation by means of N,N-dimethyl aminomethyl ferrocene and its iodo methylate

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 11, 1962, 1997 - 2001

TEXT: The following syntheses were made with N,N-dimethyl aminomethyl ferrocene (A), trimethyl(ferrocenyl-methyl) ammonium iodide (B), and dimethyl-ethyl(ferrocenyl-methyl) ammonium bromide (C):- (1) Reaction of B with $Na_2S \cdot 10H_2O$ on a boiling water bath and extraction with ether produced di-(ferrocenyl-methyl) sulfide, yield 54%, m.p. 107 - 108°C (with decomposition). The IR spectrum contained absorption bands at 1000 and 1104 cm^{-1}. (2) Di-(ferrocenyl methyl) disulfide, yield 33%, m.p. 125-127°C (with decomposition), was obtained from B and NaSH, the latter being produced by bubbling H_2S through NaOH solution. (3) The synthesis of ferro-

Card 1/4

Ferrocenyl methylation by means of...

cenyl methyl acetate was made in three ways: (a) Reaction of B with glacial acetic acid at 90 - 95°C in N_2 atmosphere, yield 25%, m.p. 74-76°C, IR absorption bands at 997, 1104, and 1740 cm^{-1}. A compound soluble in benzene, (gross formula $C_{12}H_{12}Fe$, m.p. 115-135°C) formed at 110-150°C; it was not further investigated. (b) Reaction of C with sodium acetate at 150-155°C in vacuum (7 mm Hg), yield 39%, m.p. 75-76°C. (c) Reaction of A with acetic anhydride, yield 89%. The compound obtained by (c) was, as to m.p. and IR spectrum, identical with the compounds obtained by reactions (a) and (b). (4) Reaction of A with methyl benzoate in N_2 atmosphere at 130 - 135°C, and extraction with benzene, produced ferrocenyl methyl benzoate, yield 50%, m.p. 132-133°C, IR bands at 1003, 1098, 1700 cm^{-1}. (5) Reaction of A with methyl anthranilate produced ferrocenyl methyl anthranilate, yield 46%, m.p. 123-124°C, IR bands at 996, 1102, 1686 cm^{-1}. (6) Heating of B with ethyl acetate at 120-125°C produced, instead of the expected ferrocenyl methyl acetate, ferrocenyl carbinol ethyl ether, yield 42%, b.p. 68-70°C/0.3 mm Hg, n_D^{20} 1.5840. The IR bands at 1002, 1106 cm^{-1}

Card 2/4

proved the existence of a nonsubstituted cyclopentadienyl ring. Bands of an ester carbonyl group were not observed. (7) B with butyl acetate produced ferrocenyl carbinol butyl ether, yield 35%, m.p. 31.5-32.5°C, b.p. 105-106°C/2 mm Hg, n_D^{20} 1.5695. IR bands at 1004 and 1104 cm^{-1}. (8) Heating of B with piperidine at 110°C produced N-(ferrocenyl-methyl) piperidine, yield 94%, m.p. 84.5 - 85.5°C, IR bands at 1002, 1103, 1303 cm^{-1}. Reaction of A with piperidine did not lead to a substitution of the dimethyl amino radical. (9) N-(ferrocenyl-methyl) morpholine was obtained from B and morpholine at 120-130°C, yield 95%, m.p. 74-75°C, IR bands at 1006, 1104 cm^{-1}. (10) N-(ferrocenyl-methyl) aniline was obtained from B and aniline in boiling aqueous solution, yield 75%, m.p. 84-84.5°C, IR bands at 1000, 1106, 1602, 1552-1566, 3930 cm^{-1}. (11) N-(ferrocenyl-methyl) phthalimide was obtained from B and potassium phthalimide in dimethyl formamide solution at 130-140°C, yield 97%, m.p. 209-210°C (with decomposition), IR bands at 1000, 1102, 1706, 1758 cm^{-1}. (12) Ferrocenyl methyl amine was obtained from N-(ferrocenyl-methyl) phthalimide and hydrazine hydrate heated at 80-90°C in N_2 atmosphere, by precipitation with NaOH, b.p.

108-110°C/0.3 mm Hg, n_D^{20} 1.6310, IR bands at 1002, 1106, 3288, 3368 cm^{-1}. This compound decomposes in air. Bubbling of HCl through its benzene solution yielded ferrocenyl methyl amine hydrochloride, decomposition temperature 233-235°C.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: April 2, 1962

Card 4/4

TYURIN, V.F., inzh.

Conference on the "Quality and reliability of welded joints in the chemical machinery industry." Svar. proizv. no.8:42-43 Ag '64. (MIRA 17:9)

VETUKHNOVSKIY, Z.B., inzh.; VLADYCHINA, Ye.N., inzh.; GUBENSKIY, V.A., inzh.; DORRENDORF, V.I., inzh.; SEREBRYANIKOV, S.N., inzh.; SOLIYENKO, V.O., inzh.; TIMOKHOV, Ye.P., inzh.; TYURIN, V.F., vedushchiy inzh.; BOROVIKOV, B.A., red.; KUPTSOV, A.P., tekhn.red.

[Painting in a high voltage electric field] Okraska v elektricheskom pole vysokogo napriazheniia. Moskva, TSentral'noe biuro tekhn.informatsii, 1958. 63 p. (MIRA 12:7)

1. Russia (1917- R.S.F.S.R.) Moskovskiy gorodskoy ekonomicheskiy administrativnyy rayon. Sovet narodnogo khozyaystva. 2. TSentral'naya nauchno-issledovatel'skaya laboratoriya Vsesoyuznoy proizvodstvennoy kontory "Lakokraspokrytiye" (for Vetukhnovskiy, Vladychina, Gubenskiy, Dorrendorf, Serebryanikov, Soliyenko, Timokhov).
(Spray painting)

TYURIN, V.F., inzh.; MARKIN, A.M., inzh.

Consultation on readers' letters. Svar.proizv. no.11:48 N '62.
(MIRA 15:12)
1. Komitet po nadzoru za bezopasnym vedeniyem rabot v promyshlennosti i gornomu nadzoru pri Sovete Ministrov SSSR (for Markin).
(Welding)

GITLEVICH, A.D.; ZHIVOTINSKIY, L.A.; ZHMAKIN, D.F.; FAL'KEVICH, A.S., kand.tekhn. nauk, retsenzent; CHIKUNOV, A.I., inzh., retsenzent; TYURIN, V.F., inzh., red.; PETUKHOVA, G.N., red.izd-va; MODEL', B.I., tekhn.red.

[Work standards based on technical data for welding engineering processes]Tekhnicheskoe normirovanie tekhnologicheskikh protsessov v svarochnykh tsekhakh. [By]A.D.Gitlevich i dr. Moskva, Mashgiz, 1962. 170 p. (MIRA 16:3)
(Welding--Production standards)

TYURIN, V.F., inzh.

Technological conference of welders in Moscow. Svar. proizv. no.8:44-46 Ag '62. (MIRA 15:11)
(Welding--Congresses)

TYURIN, V. F., inzh.

Third Siberian conference of welders. Svar. proizv. no.10:45-46 O '62. (MIRA 15:10)

(Welding—Congresses)

TYURIN, V.F., vedushchiy inzhener; ZOMBKOVSKAYA, R.V., red.; ANTONYUK, P.D., tekhn.red.

[Equipment for the manufacture of electrodes] Oborudovanie dlia proizvodstva elektrodov. Moskva, TSentr.biuro tekhn. informatsii, 1958. 37 p. (MIRA 13:10)

1. Russia (1917- R.S.F.S.R.) Moskovskiy ekonomicheskiy administrativnyy rayon. Sovet narodnogo khozyaystva. (Electrodes) (Welding research)

TYURIN, V.F.

New books on welding issued by the State Publishing House for the Machinery Industry. Avtom. svar. 14 no.8:88-92 Ag '61. (MIRA 14:9)

(Bibliography--Welding)

TYURIN, V.F., inzh.

Second Siberian Scientific Technological Conference on Welding and Hard Facing. Svar. proizv. no.9:41-42 S '61. (MIRA 14:8)

(Welding--Congresses)

TYURIN, V.F.

A useful periodical on welding ("Automatic welding"). Reviewed by V.F.Tiurin. Mashinostroitel' no.7:46 '61. (MIRA 14:7)
(Electric welding)

S/117/61/000/001/013/013
A004/A001

AUTHOR: Tyurin, V. F.

TITLE: The Achievements of the Science and Technology of Welding into Practice

PERIODICAL: Mashinostroitel', 1961, No. 1, pp. 40-44

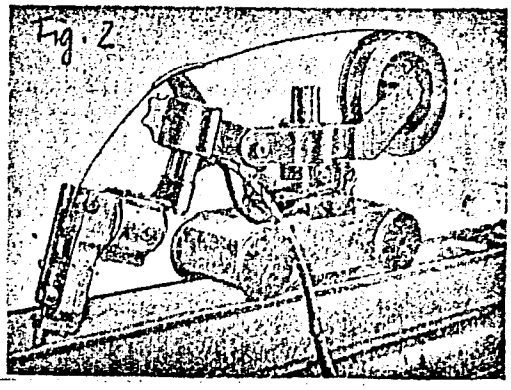
TEXT: The author reports on an exhibition which took place from July to October 1960 at the VDNKh under the title "The Introduction of Progressive Welding Technology into National Economy of the USSR". The exhibition had 13 sections: the introductory, welding structures, semi-automatic and automatic submerged welding, gas-shielded arc welding supply sources for arc welding, building-up, electric-slag welding, mechanization of welding operations, resistance welding, welding materials gas-flame treatment, new welding methods, quality check of welded parts. Some thousand exhibits were shown, while diagrams and graphs demonstrated the goal of the Seven-Year Plan to increase the mechanization of welding operations from 11% in 1958 to 40% in 1965. Great attention was given to the process of electric-slag welding, the importance of which is demonstrated by the fact that e. g. the Novo-Kramatorskiy mashinostroitel'nyy zavod (Novo-Kramatorskiy Mechanical Engineering Plant) produced more than 30,000 tons of

Card 1/8

The Achievements of the Science and Technology of Welding into Practice

structures by the electric-slag welding method and thus saved more than 100 million rubles. This welding process is extensively used also at the Barnaul'skiy kotel'nyy zavod (Barnaul Boiler Plant), Taganrog "Krasnyy kotel'shchik" Plant, at the pressing shop of the ZIL, Uralmashzavod and at other enterprises. The Gor'kovskiy avtozavod (Gor'kiy Automobile Plant) showed at the exhibition an all-welded body of the "Volga" car with more than 7,000 welding spots. More than 80 exhibits showed the achievements of the Soviet industry in the field of semi-automatic and automatic submerged welding. The Institut elektrosvarki (Electric Welding Institute) exhibited the new TC-32 and TC-33 (TS-32 and TS-33) designs of welding tractors devised for one-sided welding of steel 3-12 mm thick. Welding is taking place with wire 2-5 mm in diameter with currents of 400-1,200 amp. [Abstractor's note: the text states "400-1,200 m" which is obviously a misprint].

Figure 2:



Card 2/8

The Achievements of the Science and Technology of Welding into Practice

Figure 2 shows the multi-purpose АДМТ-300 (ADMT-300) automatic welder intended for the welding of thin sheet material of 0.5 - 3.0 mm. This welder operates either on d-c or a-c with one or two electrodes. The maximum welding current is 350 amp. The УСА-500 (USA-500) multi-purpose automatic welder has been devised for the welding of straight or ring-shaped seams, using either electrode wire for submerged or gas-shielded arc welding, or tungsten electrodes with or without additives. Welding is effected with direct current of rated 500 amp. A number of enterprises exhibited special-purpose electric-welding apparatus, among others the new hose-type A-643 automatic welder shown by the Institute of Electric Welding. The TsNIITMASh and the Stalingrad NIITMASh exhibited interesting specimens of welding equipment with photo-servo systems for the tracking of the welding head along the welding seam. The use of the ФКУ-30 (FKU-30) copying device made it possible to obtain tracking accuracies in the range of ± 1-1.5 mm. Quite a number of welding pistols and electric riveting apparatus were shown at the exhibition, e. g. the A-564 welding pistol for the resistance welding of bolts 4-12 mm in diameter, developed by the Institute of Electric Welding, a welding pistol for the welding of M8-M12 bolts, developed by the Rizhskiy vagonostroitel'nyy zavod (Riga Railroad Car Plant), and an electric riveting apparatus developed by the

The Achievements of the Science and Technology of Welding into Practice

"Rostsel'mash" Plant. The NIAT exhibited the АРК-1 (ARK-1) and АРК-2 (ARK-2) automatic welders of the cantilever type, devised for the welding of light-alloy parts from 0.8 mm thickness with consumable and nonconsumable electrodes. The cantilever rotates through 360°, the welding head travels along the cantilever and is inclinable by ± 10 - 15°. An example of the extensive work of the NIAT in the field of standardization and unification are the АДСВ-2 (ADSV-2) automatic welder for tungsten electrodes operating at 400 amp, the АДСП-2 (ADSP-2) automatic welder operating with consumable electrodes at 400 amp and the АДСПВ(ADSPV) automatic welder. The VNII elektrosvarochnogo oborudovaniya (VNII of Electric Welding Equipment) exhibited the new УДАР-500 (UDAR-500) welding apparatus for the a-c welding with tungsten electrodes and the hose-type РДА-300 (PDA-300) semi-automatic welder for aluminum wire 1.6 - 2mm in diameter. The PDA-300 welder is equipped with a double wire-feed system (pulling and pushing feed). Moreover, VNII exhibited the technically original ГСС-1 (GSS-1) and АДГ-2 (ASG-2) apparatus for the welding of curved seams with tungsten electrodes. These apparatus are equipped with photo-servo systems. The ASG-2 apparatus can be remote-controlled with the aid of a TV-installation. The Gor'kiy Automobile Plant exhibited an 18-spot welding automatic for the welding of crankshaft bottoms

Card 4/8

The Achievements of the Science and Technology of Welding into Practice

on the production line. The machine has a capacity of 120 crankshaft bottoms per hour. The suspension-type МТПК-1 (MTPK-1) spot-welding and МРТП-2 (MRTP-1) seam-welding apparatus have been devised for the welding of low-alloyed and stainless steel stock of up to 2 mm thickness. Both apparatus have a sweep of 600 mm. The Taganrog "Krasnyy kotel'shchik" Plant reported on its practice of eliminating the inner burr during resistance welding with the aid of an air jet enriched with oxygen (60 - 70%). The Institute of Electric Welding im. Ye. O. Paton exhibited a whole range of electric-slag welding apparatus, among others the new rail-type A-535 welder for the welding of straight and ring-shaped seams with wire electrodes, the A-569 apparatus for welding with plate electrodes, the portable A-645 welder for "consumable nozzle" welding, and the small-size A-671 apparatus for the welding of assembly butts. Figure 6 shows the АНК3Ф (ANKEF) apparatus for submerged vibration-arc building-up operations exhibited by the TsNII MPS. Submerged vibration-arc building-up prevents the formation of microcracks, since the built up metal protected by a flux layer is not subjected to abrupt cooling. The Institute of Electric Welding im. Ye. O. Paton showed an installation for submerged building-up with band-shaped electrodes of low-carbon or stainless steels, malleable cast iron, copper or other materials, the ORGRES demonstrated a new method of semi-