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## Foreign Documents Branch C I A Periodical Abstracts

28 May 1948

SCIENTIFIC

Number 41

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"Arkhiv Patologii" (Archive of Pathology) Cards 68-73, 89	Vol X No 1	Jan/Feb 1948
"Astronomicheskii Zhurnal" (Astronomical Journal) Cards 4-6, 103	Vol XXIV No 1	Jan/Feb 1948
"Fel'dsher i Akusherka" (Medical Assistant and Midwife) Cards 65-67, 88	No 1	Jan 1948
"Fiziologicheskii Zhurnal SSSR imeni I. M. Sechenova" (Physiology Journal of the USSR imeni I. M. Sechenov) Cards 55, 56, 64, 83-87, 91	Vol XXXIV No 1	Jan/Feb 1948
"Izvestiya Akademii Nauk SSSR, Seriya Geograficheskaya i Geofizicheskaya" (News of the Academy of Sciences of the USSR, Geography and Geophysics Series) Cards 32, 42, 43, 45-53	Vol XII No 2	Mar/Apr 1948
"Izvestiya Akademii Nauk SSSR, Seriya Geologicheskaya" (News of the Academy of Sciences of the USSR, Geology Series) Cards 1, 33-41, 44, 54	No 1	Jan/Feb 1948
"Izvestiya Akademii Nauk SSSR, Seriya Matematicheskaya" (News of the Academy of Sciences of the USSR, Mathematics Series) Card 2	Vol XII No 1	Jan/Feb 1948
"Promyshlennaya Energetika" (Industrial Energetics) Cards 14, 20	No 1	Jan 1948
"Stal'" (Steel) Cards 3, 17-19, 21-31, 92-98	No 1 No 2	Jan 1948 Feb 1948
"Uspekhi Sovremennoy Biologii" (Progress of Contemporary Biology)* Cards 57-63, 79, 90	Vol XXIV No 1	Jan/Feb 1948
"Vestnik Svyazi, Elektro-Svyaz'" (Herald of Communications, Elektro-Communications)* Cards 7-13, 15, 16, 107	No 1 (94)	Jan 1948

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"Vestnik Venerologii i Dermatologii" (Herald of  
Venereology and Dermatology)  
Cards 74-78, 80-82

No 1

Jan/Feb 1948

"Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki"  
(Journal of Experimental and Theoretical Physics)  
Cards 99-102, 104-106

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NOTE

In indexing these abstracts the following guides are used: MEDICINE - "Quarterly Cumulative Index Medicus," American Medical Association; CHEMISTRY - "Chemical Abstracts Subject Index," American Chemical Society; GENERAL - "Subject Headings for Technical Libraries," US Department of Commerce, Office of Technical Services.

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<p>USSR/Academy of Sciences Geology</p> <p>Jan/Feb 1948</p> <p>"Jubilee Session of the Academy of Sciences USSR," S. Levchenko, 1 p</p> <p>"Izv Akad Nauk SSSR, Ser Geol" No 1</p> <p>Academy of Sciences had Jubilee Session 23 Oct - 2 Nov 1947, in honor of the 30th Anniversary of the Great October Revolution. Department of Geology-Geographical Sciences held session, 28-29 Oct. Theses submitted by V. A. Obruchev, A. N. Zavaritskiy, D. S. Korzhinskiy, A. A. Saukov, V. I. Vernadskiy, A. Ye. Fersman, A. A. Grigor'yev, and I. P. Gerasimov. All articles published in Jubilee Edition by Academy of Sciences.</p> <p>FDB 41T1</p>	<p>USSR/Academy of Sciences Mathematics</p> <p>Jan/Feb 1948</p> <p>"Requirements for Competition for Prize imeni P. L. Chebyshev for Best Work in the Field of Mathematics," L. A. Orbeli, Vice-pres, Acad Sci USSR; N. G. Bruyevich, Academician Secy, Acad Sci USSR, 1 p</p> <p>"Izv Akad Nauk SSSR, Ser Mat" Vol XII, No 1</p> <p>Establishes eligibility requirements for competition. Prize worth 20,000 rubles; final day for filing is 1 Sep.</p> <p>FDB 41T2</p>	
<p>USSR/Academy of Sciences Metallurgy</p> <p>Feb 1948</p> <p>"The Eighty-fifth Year of Academician M. A. Pavlov" 2 pp</p> <p>"Stal'" No 2</p> <p>On 22 Jan 1948 Pavlov, the great metallurgist, celebrated his 85th birthday. Presents brief history of his scientific activity. Urges all metallurgists to look at Pavlov's accomplishments when choosing a goal.</p> <p>FDB 41T3</p>	<p>USSR/Astronomy</p> <p>Jan/Feb 1948</p> <p>"The Principal Advantages and Structural Properties of a Horizontal Meridian Instrument," L. A. Sukharev, 6 1/2 pp</p> <p>"Astr Zhur" Vol XXV, No 1</p> <p>General description of the instrument and describes errors which may occur with its use. Considers instrument as only an interim measure, and further research necessary.</p> <p>FDB 41T4</p>	
<p>USSR/Astronomy Refraction, Astronomic</p> <p>Jan/Feb 1948</p> <p>"Determination of Latitude by the Talcott Method from Several Pairs Connected with the Same Position on the Talcott Levels," N. Abakymov, Zagreb Astr Inst, 18 pp</p> <p>"Astr Zhur" Vol XXV, No 1</p> <p>Describes errors commonly made when determining latitude, discusses effect of the refraction anomaly, and suggests that prolonged periods of observation are best means of obtaining accuracy.</p> <p>FDB 41T5</p>	<p>USSR/Astronomy Latitude Navigation</p> <p>Jan/Feb 1948</p> <p>"Plan for an Independent Soviet Latitude System," V. K. Abol'd, Irkutsk, 4 pp</p> <p>"Astr Zhur" Vol XXV, No 1</p> <p>Suggests setting up two stations in the USSR in order to insure that the country is not dependent on international cooperation. One station would determine the latitude and amplitude of the first polar coordinate, and the other for the second polar coordinate.</p> <p>FDB 41T6</p>	
<p>USSR/Communications Telegraphy - High Speed Telegraphy - Equipment</p> <p>Jan 1948</p> <p>"Increasing the Rectifying Characteristics of the Bodo Apparatus," P. A. Kotov, Dr Tech Sci, 2 1/2 pp</p> <p>"Vest Svyazi, Elektro-Svyaz'" No 1 (94)</p> <p>In "Vestnik Svyazi, Elektro-Svyaz'" No 8, 1947, appeared an article discussing several formulas for calculating rectification during normal operation of the Bodo apparatus. Kotov discusses several other aspects of this rectification. Explains effect of correction contact on the rectifying characteristic of the apparatus, Picar's system of correction when used with</p> <p>LC 41T7</p>	<p>USSR/Communications Telephones - Apparatus</p> <p>Jan 1948</p> <p>"Improvement of Equipment at Stepper ATS," I. I. Elentukh, Engr, 2 pp</p> <p>"Vest Svyazi, Electro-Svyaz'" No 1 (94)</p> <p>Offers two main sections: First deals with variations adopted in the system of the universal TIS to enable use of it in the capacity of a TLMS. Second discusses apparatus which can be used to check output from various fields (poles) of ATS apparatus. Both innovations were developed at the Minsk ATS for intercity telephone communications. Well illustrated with circuit diagrams.</p> <p>LC 41T8</p>	

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USSR/Communications (Contd)	Jan 1948	USSR/Communications Telephones - Apparatus	Jan 1948
shortened contacts of the Bodo apparatus, practical method of determining the degree of displacement of the correction contact, and interrelationship of shortened contacts of rings I and II on forering.		"Type IP-47, Locator of Breakdowns," P. A. Frolov, N. V. Luskinovich, Engineers, 2 pp	
LC		"Vest Svyazi, Elektro-Svyaz'" No 1 (94)	
Briefly describes new type of damage locator developed by factories of the Ministry of Communications. Apparatus is unique, as with its assistance it is possible to accomplish effective telephone communications, particularly when wire crews are installing new lines, or overhauling old ones. Consists of four basic parts: 1) chassis, equipped with 12-volt commutator tube; 2) locator coils; 3) speaker or microphone attachment; and 4) source of power.		LC	
USSR/Communications Telephones - Apparatus	Jan 1948	USSR/Communications Telephones - Circuits	Jan 1948
"Manually Operated Telephone Apparatus of the TsB System, Produced by VEF Works," M. N. Stoyanov, Candidate Tech Sci, 3 pp		"Technical Overhauling of Metropolitan Telephone Circuits," Ya. V. Basayev, Engr, 1½ pp	
"Vest Svyazi, Elektro-Svyaz'" No 1 (94)		"Vest Svyazi, Elektro-Svyaz'" No 1 (94)	
Aims to acquaint reader with the construction and circuit of a manually operated telephone apparatus, of the TsB system, produced by the VEF works of Ministry for Production of Means of Communications. Discusses the basic characteristics. This new development has many favorable features. Can accommodate up to 140 numbers, and has 18 pairs of patch cords.		Generally describes some of the overhauling operations which have been done and are scheduled to be done to various metropolitan telephone circuits. For the most part this overhauling has gone hand in hand with installation of automatic, and semiautomatic telephone stations in place of manually operated telephone stations. States that all this modernization has resulted in lack of trained personnel to meet requirements of these new systems.	
LC	41T7	LC	41T9
USSR/Communications Radio Equipment Radio Broadcasting	Jan 1948	USSR/Communications Telephones Radio Stations	Jan 1948
"Let Us Increase the Effectiveness of the Exploitation of Means of Radio Communication and Radio Broadcasting," V. Ya. Kogan, Engr, 2 pp		"Tasks for Soviet Communicators for the Decisive Year of the Postwar Five-Year Plan," K. Ya. Sergey-chuk, Minister of Communications, USSR, 3 pp	
"Vest Svyazi, Elektro-Svyaz'" No 1 (94)		"Vest Svyazi, Elektro-Svyaz'" No 1 (94)	
New radio stations established in Leningrad, L'vov, Tbilisi, Riga and other cities. Great strides made in the distribution of such apparatus as Bodo, the TRT-1 and other types of commercial telegraph apparatus. Author exhorts all hands to increase the efficiency of their operation and seek to achieve attainments similar		Recapitulates work accomplished in the Soviet Union, in the field of communications, during the first year of the postwar Five-Year Plan. Mentions several decrees affecting development of various branches in this field. Some 67 metropolitan telephone systems overhauled, of which 33 changed to automatic	
LC	41T10	LC	41T11
USSR/Communications (Contd)	Jan 1948	USSR/Communications (Contd)	Jan 1948
to the Tashkent Direction of Radio Communications, which has received the Red Banner of VTsSPS annually for the past four years. Lists some of the other communications centers which have been awarded prizes during the past year.		telephone networks. Overhauled and established 725 radio centers and installed some 700,000 new radio points. Of this number 150,000 radio points were set up in agricultural communities. Most of the production figures are given in percentages. Lists various cities and towns benefiting most from the advances in communications.	
LC	41T12	LC	41T13

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<p>USSR/Electricity Motors, Electric Motors - Tests</p> <p>Jan 1948</p> <p>"Methods of Carrying Out Tests on Asynchronous Loaded Electric Motors," L. Ya. Chernyak, Engr, Tsentro-EnergoCherMet, 4½ pp</p> <p>"From Energetika" No 1</p> <p>Discusses some methods of testing the basic parameters of asynchronous electric motors (I,U,cosΦ, n, and η). Notes that certain steps must be taken before tests can be conducted. Method suggested is incomplete but can be used as an emergency method at industrial plants, etc.</p> <p>FDB 41T14</p>	<p>USSR/Electricity Electrical Equipment Permafrost</p> <p>Jan 1948</p> <p>"Several Methods of Grounding," E. L. Kretovich, Engr, 1½ pp</p> <p>"Vest Svyazi, Elektro-Svyaz'" No 1 (94)</p> <p>Electric apparatus having an initial high voltage but having apparatus using low voltages attached to them must be grounded. Grounding is simple matter in most climatic conditions but presents all manner of difficulty in those regions of frozen soil. Briefly describes frozen soils and discusses their electroconducting property. Suggests several methods</p> <p>LC 41T15</p>	
<p>USSR/Electricity Radio Equipment Voltage Regulators</p> <p>Jan 1948</p> <p>"Utilization of a Carbon Regulator RNU-5 for Stabilizing the Filament Voltage Supplied by Generators," V. A. Plotnikov, Engr, 1 p</p> <p>"Vest Svyazi, Elektro-Svyaz'" No 1 (94)</p> <p>DC generators very frequently possesses de-stabilizing factors which cause fluctuations in the generated voltage. Especially important to overcome this unstable characteristic, when these machines are used to supply power to filaments (of tubes, etc.). Discusses carbon regulator developed at one of the broadcasting stations which greatly stabilizes this current and makes</p> <p>LC 41T16</p>	<p>USSR/Electricity (Contd)</p> <p>Jan 1948</p> <p>of carrying out effective grounding measures for high voltage equipment which is being operated in regions of frozen soil.</p> <p>LC 41T15</p>	
<p>USSR/Electricity (Contd)</p> <p>Jan 1948</p> <p>it possible to use DC generators very effectively for supplying power to filaments.</p> <p>LC 41T16</p>	<p>USSR/Engineering Foundry Practice Casting</p> <p>Feb 1948</p> <p>"Development and Present Day Status of Continuous Casting of Metals," I. Ya. Granat, Candidate Tech Sci, V. M. Tageyev, Engr, 7 pp</p> <p>"Stal'" No 2</p> <p>In spite of the great engineering, technologic, and economic advantages of continuous casting of steel parts, the basic method of conducting continuous casting--with a moving and stationary crystallizer--cannot be said to be sufficiently developed for efficient industrial use. It is important and necessary to intensify experimental work in this field.</p> <p>FDB 41T17</p>	
<p>USSR/Engineering Metallurgical Plants Fuel - Conservation</p> <p>Feb 1948</p> <p>"Transfer of Foundry Driers to Solid Fuel," Docent A. I. Vashchenko, Moscow Steel Inst, 4 pp</p> <p>"Stal'" No 2</p> <p>For economy all foundry driers using liquid fuel are being changed over to cheaper solid fuel. With this change the heaters can be equipped with simple fire-boxes, with means for ejection of smoke gases. Such units have been used successfully at Moscow Steel Institute.</p> <p>FDB 41T18</p>	<p>USSR/Engineering Tools, Machine Efficiency, Industrial</p> <p>Jan 1948</p> <p>"Technical Normalization of Machine Tool Work," G. I. Shandrenko, Engr, OpgCherMet, 3½ pp</p> <p>"Stal'" No 1</p> <p>To increase productivity of mechanized plants in metallurgical works, it is important to improve organization for preparation of production and labor, as well as improve organization for technical normalization and adopt methods of progressive processing norms.</p> <p>FDB 41T19</p>	



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USSR/Engineering Cutting Torches Gas Burners	Jan 1948	USSR/Engineering Metallurgy Steel Foundries
"Micro-jet Combustion," Docents V. L. Korneyev, D. M. Khzmalyan, MEI, 4 pp		"Metallurgical Works imeni Dzerzhinskiy," N. M. Fomenko, Director, Metal Works imeni Dzerzhinskiy, 5 pp
"Prom Energetika" No 1		"Stal'" No 1
Report results of experiments they conducted at the Moscow Order of Lenin Energetics Institute imeni V. M. Molotov, for intensification of combustion of gas-air mixtures, to obtain high thermal capacities for ordinary gas burners.		A new city, Dneprodzerzhinsk, has sprung up along the banks of the Dnepr River. Built around the industrial giant known as the Metallurgical Works imeni Dzerzhinskiy. Briefly describes plant, and discusses production in terms of comparative percentages with production of pig, steel, and rolled
FDB	41T20	FDB
USSR/Engineering Factories - Production Pipe Industry	Jan 1948	USSR/Engineering (Contd)
"The First Pipe Factory of the Urals," Ya. P. Osadchiy, Director, PervoUral Pipe Factory, 2½ pp		steel in 1913. On the average 1941 production increased by threefold over 1913 figure. Shows a part of the plant from the river, and one open-hearth furnace. It is hoped that a second agglomeration plant can be put into operation during 1948.
"Stal'" No 1		
First factory went up in 1930. By 1934 it was turning out pipes for several uses. Briefly discusses development of factory, and mentions its part in accomplishing the present Five-Year Plan. Expected factory will be turning out greater part of alloy pipes produced in Soviet Union by end of this Five-Year Plan.		
FDB	41T22	FDB
USSR/Engineering Metallurgy Furnaces, Metallurgical	Jan 1948	USSR/Engineering Water - Softening Water - Purification
"Characteristics of Basic Fettling in Martin Furnaces" A. S. Berezhnoy, Dr Tech Sci, All-Union Inst of Fire Resistant Materials, 9 pp		"New Method for Purifying Industrial Water," Ye. N. Teterkin, Candidate Tech Sci, Inst VODGEO, 6 pp
"Stal'" No 1		"Stal'" No 2
Characteristics of basic fettling of Martin furnaces vary widely because of variations in the composition of the mixtures, and conditions under which fettling takes place. Where there is a high magnesium oxide content, magnesium welds have high degree of stability in comparison with magnesium-dolomites, but have a		Settling towers for purifying industrial water can be replaced easily by comparatively compact suspension separators in which the process of settling of the solid particles in the water is greatly speeded up by inside sludge. Use of this new method permits an increase in production of purifiers now in use. Vortex reactors can be attached and thus speed up the process of softening the water.
FDB	41T23	FDB
USSR/Engineering (Contd)	Jan 1948	USSR/Engineering Metallurgy, Ferrous Metals - Bibliography
slightly lower clinkering factor. During operation of the furnaces, it must be noted that it is possible to oxidize the basic fettling.		"New Domestic Literature on Ferrous Metallurgy (Nov 1947)" 4¼ pp
		"Stal'" No 2
		Lists books released in the following fields: coke by-products industries; ore industries; metallurgy, under which are books on rolling, smelting, casting, etc.; metal studies taking in structure of metal and metal alloys, thermal and chemical thermal processing; the power economy. Latter part lists books published in foreign countries.
FDB	41T25	FDB

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USSR/Engineering Metallurgy - By-products Road Materials	Jan 1948	USSR/Engineering Heating, Exhaust Gas Furnaces - Performance	Jan 1948
"Production of Cinder Block at the Chusovsk Works," G. K. Postylyakov, I. A. Glyzin, Engineers, 1 p		"Performance of Boiler Recoverers at the Magnitogorsk Metallurgical Combine," S. I. Gorskov, Engr, Magnitogorsk Metallurgical Combine, 1 p	
"Stal'" No 1		"Stal'" No 1	
In Jun 1946 tests were conducted at the Chusovsk Metallurgical Works to determine the possibility of using titanium dome furnace cinders as a base for road cinder block. Discusses the results of the tests. States that the blocks fulfilled all the requirements set up by GOST, and observes that storage of these blocks outside, even under winter conditions will not lower the quality.		In 1940 boiler recoverers were installed at Martin furnaces No 1 and 2 of the Magnitogorsk Metallurgical Combine. Operation of these assemblies is most satisfactory as it permits utilization of heat as it goes up the chimney. Thus, instead of wasting, it is used to heat the company offices. At the	
FDB	41T26	FDB	41T27
USSR/Engineering Metallurgy Furnaces, Metallurgical	Jan 1948	USSR/Engineering (Contd)	Jan 1948
"Some Questions with Regard to Improving the Construction of Martin Furnaces," D. A. Smolyarenko, N. I. Yefanov, Engineers, MChM, 9½ pp		same time the performance of the furnaces is improved and in 1946 one of the crews at furnace No 1 was able to exceed its norm by some 5,000 tons.	
"Stal'" No 1			
B. I. Kitayev, and V. V. Lempitskiy made some theoretical conclusions to the effect that a two-story cap is much more efficient than the cap construction suggested by Ventur. However, this still requires practical proof. Ventur heads (caps) operate satisfactorily on large Martin furnaces. Rose's portable head is also finding satisfactory industrial use. It is necessary			
FDB	41T28	FDB	41T27
USSR/Engineering (Contd)	Jan 1948	USSR/Engineering Metallurgy Steel Ingots	Jan 1948
to improve the efficiency of the operation of the nozzles, however, when the portable head is used. For this, it is necessary to improve the fire resistance of the material. In this line, experiments conducted at the KMK (Kuznets Metallurgical Combine) are of great interest. Tests are being conducted to determine practicability of using highly aluminum nozzles.		"Rational Shapes for Slabs," I. D. Kuzema, Engr, Works imeni Il'ich, 5 pp	
		"Stal'" No 1	
		Offers methods for making slabs in new sizes. Claims that this must be done to decrease loss of metal during the cutting of plates. Claims that, for the most part, this can be accomplished by use of Convexo-concave wide and straight (or lightly convexo-concave) thin facets. Waste can also be cut down by the use of slabs of the proper width.	
FDB	41T28	FDB	41T29
USSR/Engineering Metallurgy Rollers	Jan 1948	USSR/Engineering Sheet Metal - Properties Heat Treatment	Feb 1948
"The Durability of Heat Treated Chilled Thin Plate Rollers," N. F. Dubrov, Candidate Tech Sci, Alapayevskiy Works, 1 p		"Physical Properties of a Pile of Metal Sheets during Heating," P. V. Kobayakov, Engr, Eastern Sci Res Inst of Fuel Utilization, 4½ pp	
"Stal'" No 1		"Stal'" No 2	
States that the durability of chilled rollers depends not only on the chemical composition and structure of the rollers but also on the internal casting tensions. Various tests conducted at the Alapayevskiy Works to determine the durability of rollers. Lists results of tests on some ten rollers in table form.		Thermal conductivity of thin sheets in a direction perpendicular to their plane does not exceed 2% of the thermal conductivity of the sheet as a whole. Therefore, the height of the pile has no effect on the speed of its being heated. The basic heating current should be directed against the long side of the pile.	
FDB	41T30	FDB	41T31

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USSR/Geography Photography, Aerial Photogrammetry	Mar/Apr 1948	USSR/Geology Tectonics	Jan/Feb 1948
<p>"The Use of Azimuth Projections to Solve and Study Photogrammetric Problems," N. G. Kell', 18 pp</p> <p>"Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 2</p> <p>This method of research is possible with aerial photographs of small angles or angles close to 90°, and can be applied to plane photographs, or for any angle where the observations need not be exact and small errors are permissible. Gives new method for orienting plane aerial photographs and also for estimating</p>	41T32	<p>"Tectonics of the Western Tuva on the Junction with the Altay Mountains," V. A. Kuznetsov, 16 pp</p> <p>"Izv Akad Nauk SSSR, Ser Geol" No 1</p> <p>Discusses the tectonics of the orographic and tectonic nodules at the junction with the western Aayan, the Altay Mountains, and the Tannu-Ola Range. Directs particular attention to the structure of the tectonic blocks. Confirms the immature nature of the differential movement of the blocks, which are the reason for the contemporary relief of this region.</p>	41T33
USSR/Geography (Contd)	Mar/Apr 1948	USSR/Geology Stratification	Jan/Feb 1948
<p>the altitude of ground objects on these photographs, by means of forward projections. Shows the construction of a dispersion ellipse. Submitted at the 23 Apr 1947 session of the Department of Geologo-Geographical Sciences.</p>	41T32	<p>"Stratigraphy of the Devonian Deposits of the Western Slopes of the Urals Within the Limits of the Ufimsk Amphitheater and Kara-Tau," S. M. Domrachev, V. S. Meleshchenko, N. G. Chochia, 31½ pp</p> <p>"Izv Akad Nauk SSSR, Ser Geol" No 1</p> <p>Discusses basins of the Ufa, Aa, Yurezan, and Sim Rivers. Author presents some new data obtained during his studies on the Devonian deposits of the Ufimsk amphitheater and Kara-Tau, and attempts to set up a single standard on which the stratigraphy of this region can be based. His data referring to</p>	41T34
FDB	41T32	FDB	41T34
USSR/Geology Tectonics	Jan/Feb 1948	USSR/Geology (Contd)	Jan/Feb 1948
<p>"Basic Facial Zones of the Sakmarsko-Artinsk Complex of the Southern Urals," V. Ye. Ruzhentsev, 19½ pp</p> <p>"Izv Akad Nauk SSSR, Ser Geol" No 1</p>	41T35	<p>determination of growth has a great significance in deep drilled bores.</p>	41T34
<p>Author gives short summary of the basic structural oblasts connecting the Ural geosyncline and the Russian platform. As a result of his studies, he was able to show a similarity between the types of faces from the east to the west, and was able to divide the faces into those belonging to the Artinsk period and those belonging to the Sakmarsk period. Draws some conclusions on the structural-facial relationships that appeared on the western slopes of the Urals after the Hercynian orogenous epoch.</p>	41T35	FDB	41T34
USSR/Geology Calcium Carbonate	Jan/Feb 1948	USSR/Geology Clays Soil Science	Jan/Feb 1948
<p>"Some Types of Limestones of a Mechanical Origin and the Conditions of Their Formation," A. I. Osipova, 7½ pp</p> <p>"Izv Akad Nauk SSSR, Ser Geol" No 1</p>	41T36	<p>"Mechanical Differentiation of Clay Sediments," N. Ya. Denisov, 6 pp</p> <p>"Izv Akad Nauk SSSR, Ser Geol" No 1</p>	41T37
<p>Describes the limestone found in the Upper Paleozoic terrigenous layers in the basin of the Yurezan River. Limestone was formed as the result of the washing of carbonated rocks, and skeleton remains in bentonite. Growth of the lime layers is one reason for the increase of the tectonic movement and the formation of the structure of the Kara-Tau complex.</p>	41T36	<p>Gives account of laboratory experiments conducted to show that the development of the texture may or may not be the result of seasonal changes in the size of the particles brought into the water basin. It was observed that sand particles penetrate the newest deposited layer until they reach the surface of the</p>	41T37
FDB	41T36	FDB	41T37

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<p>USSR/Geology Gold Ore Deposits Sulfides</p> <p>Jan/Feb 1948</p> <p>"Dimensions of Gold Particles in Sulfide Deposits as an Indication of Post-ore Metamorphosis," V. M. Kreyter, 3<math>\frac{1}{2}</math> pp</p> <p>"Izv Akad Nauk SSSR, Ser Geol" No 1</p> <p>Lists various scientists who have been interested in the phenomenon of the dimensions of gold particles contained in sulfide deposits as an indication of metamorphosis which has gone on after the period of ore formation. States that this question is one still needing solution, and that article merely establishes requirements for solving the problem.</p> <p>FDB 41T38</p>	<p>USSR/Geology (Contd)</p> <p>Jan/Feb 1948</p> <p>clay layer. There a chemical colloidal process takes place. Thus it is possible to explain the appearance of alternating strata of clay and sand. Basically this occurs after the deposit of various grained sediments as a result of mechanical differentiation.</p> <p>FDB 41T37</p>	
<p>USSR/Geology Ore Deposits</p> <p>Jan/Feb 1948</p> <p>"The Distribution of Elements and Admixtures in Metasomatic Deposits," L. N. Ovchinnikov, 6 pp</p> <p>"Izv Akad Nauk SSSR, Ser Geol" No 1</p> <p>On the basis of data obtained in studies of some Ural deposits, author is interested in determining a similarity in the distribution of elements and admixtures in metasomatic deposits. Their solution content is at a maximum, in the main body, rather than at the edges of the ore bodies. This appearance is explained by the fact that the motion of the elements and admixtures due to diffusion, is much slower due to the low concentration of the solution, than that going on in the main ore body. FDB 41T39</p>	<p>USSR/Geology</p> <p>Jan/Feb 1948</p> <p>"The Interrelationship of Pay-Khoy and the Urals," N. S. Shatskiy, 4 pp</p> <p>"Izv Akad Nauk SSSR, Ser Geol" No 1</p> <p>Discusses data collected by various scientists, such as Eynor, Kuznetsov, Volkov, Khabakov, and others, showing the interrelationship of the Pay-Khoy range and the Urals.</p> <p>FDB 41T40</p>	
<p>USSR/Geology</p> <p>Jan/Feb 1948</p> <p>"The History of the Tarim Settled Massive," V. M. Sinitsyn, 13<math>\frac{1}{2}</math> pp</p> <p>"Izv Akad Nauk SSSR, Ser Geol" No 1</p> <p>The Tarim settled massive is the western fragment of the Chinese platform, which settled during the period of the Yenisian movement. Discusses history of the development of the Tarim massive and also shows how its development paralleled the development of some settled regions in China.</p> <p>FDB 41T41</p>	<p>USSR/Geology Soil Science Arctic Studies</p> <p>Mar/Apr 1948</p> <p>"The Role of Convective Circulation in the Formation of the Cellular Forms of Microrelief," N. S. Shishkin, Central Geophys Observatory, 5 pp</p> <p>"Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 2</p> <p>Argues against Loy's and Gripp's theory of convection, based on some cellular forms of microrelief discovered in the arctic and the subarctic. Suggests that with the aid of the theory of convective circulation it is possible to explain the regular</p> <p>FDB 41T42</p>	
<p>USSR/Geological Prospecting Petroleum - Prospecting Coal</p> <p>Mar/Apr 1948</p> <p>"Use of the Theory of Neutron Core Sampling by Electrical Means in Prospecting for Oil and Coal Deposits," Yu. P. Bulashevich, Mining-Geol Inst, Sverdlovsk, 14 pp</p> <p>"Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 2</p> <p>Discusses method for calculating the retarding effect of fast neutrons. Delivered characteristic of the rock during neutron core sampling depends on the size of the neutron zone, and can change until it assumes a reverse characteristic. Presents a more effective</p> <p>FDB 41T43</p>	<p>USSR/Geology (Contd)</p> <p>Mar/Apr 1948</p> <p>construction of all cellular forms of microrelief, which appears in very moist soils. Among these forms are polygons, squares and hexagons. Submitted by Academician A. A. Grigor'yev, 29 Mar 1947.</p> <p>FDB 41T42</p>	

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<p>USSR/Geological Prospecting (Contd) Mar/Apr 1948</p> <p>method of using neutron core sampling in surveying for petroleum and coal deposits. Submitted by Academician L. S. Leybenzon, 28 May 1947.</p> <p>FDB 41T43</p>	<p>USSR/Geological Prospecting Ore Deposits Tectonics Jan/Feb 1948</p> <p>"Some Results of the Study of the Structure of Ore Deposits of the USSR," F. I. Vol'fson, L. I. Lukin, 23½ pp</p> <p>"Izv Akad Nauk SSSR, Ser Geol" No 1</p> <p>Gives some aspects of studies conducted on the structure of endogenous ore deposits in the USSR. Authors present some concrete examples of ore deposit structures. In addition, discuss the localization of ore formation in connection with the development of structures, as well as the methods used in their study of the various structures.</p> <p>FDB 41T44</p>
<p>USSR/Geophysics Mar/Apr 1948</p> <p>Electromagnetic Waves Earth - Electrical Properties</p> <p>"Concerning V. G. Gogoladze's Article, 'The Distribution of Electromagnetic Waves in Different Media That Are Adjacent along a Plane'," L. Brekhovskikh, 1½ pp</p> <p>"Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 2</p> <p>Shows that in Gogoladze's article on the theory of the propagation of electromagnetic waves based on the equation <math>N = k^2 b_0 + k_0^2 b</math>, where <math>b_0 = \sqrt{\lambda^2 - \kappa^2}</math> and <math>b = \sqrt{\lambda^2 - \kappa^2}</math> there is no root for <math>\lambda</math>, to satisfy the needs of the functions:</p> <p>FDB 41T45</p>	<p>USSR/Geophysics Mar/Apr 1948</p> <p>Electromagnetic Waves Earth - Electrical Properties</p> <p>"The Distribution of Electromagnetic Waves in Different Media That Are Adjacent along a Plane," V. Gogoladze, 3½ pp</p> <p>"Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 2</p> <p>Discusses the formula</p> $N = \frac{\kappa^2}{\kappa_0^2} \sqrt{\lambda^2 - \kappa_0^2} + \sqrt{\lambda^2 - \kappa^2} = 0$ <p>in the light of two requirements: 1) where <math>k^2</math> and <math>k_0^2</math> are substantives, and 2) where <math>k_0^2</math> and <math>k^2</math> are the complex products of numbers.</p> <p>FDB 41T46</p>
<p>USSR/Geophysics (Contd) Mar/Apr 1948</p> <p>fy the needs of the functions:</p> <p><math>Re b_0 &gt; 0</math> and <math>Re b &gt; 0</math>.</p> <p>FDB 41T45</p>	<p>USSR/Geophysics Mar/Apr 1948</p> <p>Electromagnetic Waves Earth - Electrical Properties</p> <p>"The Existence of Surface Electromagnetic Waves in Two Different Media That Are Adjacent along a Plane," V. K. Ivanov, 4 pp</p> <p>"Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 2</p> <p>Describes conditions necessary for the function used to determine Hertz's vector (calculated on the basis of the varying electromagnetic field of a vertical electrical dipole in two media).</p> <p>FDB 41T47</p>
<p>USSR/Geophysics Mar/Apr 1948</p> <p>Meteorology Earth - Electrical Properties</p> <p>"The Charge of the Earth's Surface," Ye. A. Chernyavskiy, Tashkent Geophys Observatory, 7½ pp</p> <p>"Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 2</p> <p>Presents some new facts on the anticurrent in thunder regions with negative gradients of electric potential. Among these facts is the effect resulting from snowfalls in glacial regions with winds of 10- to 12-meter per-second velocity. Submitted by Academician L. S. Leybenzon, 17 Jul 1947.</p> <p>FDB 41T48</p>	<p>USSR/Geophysics Mar/Apr 1948</p> <p>Magnetic Fields - Earth Magnetism, Terrestrial</p> <p>"Statistical Distribution of the Daily Characteristics of Geomagnetic Activity," S. M. Kozik, Tashkent Geophys Observatory, 8 pp</p> <p>"Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 2</p> <p>Analyzes statistical distribution of daily characteristics in the activity of the geomagnetic field and describes the changes in the distribution of these characteristics for 1941 - 1945. Submitted by Academician L. S. Leybenzon, 6 Feb 1947.</p> <p>FDB 41T49</p>

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USSR/Geophysics Magnetic Fields - Earth Magnetism, Terrestrial	Mar/Apr 1948	"A New Method for Studying Weak Changes in the Earth's Magnetic Field," A. G. Kalashnikov, Geophys Inst, Acad Sci USSR, 9 pp  "Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 2	USSR/Hydrology Oceanology Mar/Apr 1948
Describes setup at a magnetic self-recording station, which records variations in the magnetic field of the earth on a 0.01-gamma per-millimeter scale. This type of apparatus is twice as sensitive as a magnetostatic installation. Shows examples of how the self-record-	41T50	"The Change in the Nitrogen (N) and Phosphorous (P) Content in Terrigenous Suspended Particles in a Water Medium," B. A. Skopintsev, State Oceanographic Inst, Lab of Geochem Problems, Acad Sci USSR, 11 pp  "Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 2	Describes results of laboratory studies in the changes of N and P content in terrigenous suspended particles for the period of their presence in fresh and salt water. Establishes variations in the speed and character of content changes in terrigenous
FDB	41T50	FDB	41T51
USSR/Geophysics (Contd)	Mar/Apr 1948	ing station can be used to measure changes in terrestrial magnetism due to solar eclipses, magnetic effect of lightning, the current generated by meteorites, and small explosions on the surface of the earth. Submitted by Academician O. Yu. Shmidt, 24 Nov 1947. Such a station is situated at Krasnyy Pakhr.	USSR/Hydrology (Contd) Mar/Apr 1948
FDB	41T50	particles (in fresh or salt water), which are the result of biochemical processes. Basically characteristic for salt water were: a) slow accumulation of nitrates in the water, and b) much greater accumulation of mineral phosphors. Submitted by Academician P. P. Shirshov, 19 Feb 1947.	FDB
USSR/Hydrology Flow, Turbulent Photography, High Speed	Mar/Apr 1948	"The Use of High-speed Motion Pictures to Study the Speed of a Turbulent Current," B. A. Fidman, Geog Inst, Acad Sci, USSR, 8 pp  "Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 2	USSR/Hydrology Oceanology Earth - Electrical Properties Mar/Apr 1948
Discusses a static method of processing individual picture frames of a motion picture film to study the pulsation speed in a turbulent water current. Author obtained some qualitative characteristics of turbulence for the case of a current flowing between two parallel walls. Submitted by Academician A. N. Kolmogorov, 5 Nov 1947.	41T52	"Survey of the Condition of the Electrical Current in the Black Sea (South Shore of Crimea) from May 1946 to March 1947," A. T. Mironov, Black Sea Hydrophys Sta, Acad Sci, USSR, 9 pp	"Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XII, No 2
USSR/Hydrology Oceanology Clays	Jan/Feb 1948	"Lithogenesis of Plastic Clay Sea Sediments," M. M. Yermolayev, 17 1/2 pp  "Izv Akad Nauk SSSR, Ser Geol" No 1	USSR/Hydrology (Contd) Mar/Apr 1948
Describes primary stages of the lithogenesis of plastic clay sediments. Particular attention is paid to the Atlantic type of bottom of the Arctic Seas of Eurasia. Discusses chemical composition. Explains reasons for uneven lithogenesis. Describes microorganisms found in these sediments and also the hydrogeological regime of the water systems. Gives some	41T54	electrical current in the Sea and the strength of the charge of terrestrial magnetism. Shows that amplitude of the current varies with the appearance of sunspots, or polar lights. Submitted by Academician V. V. Shuleykin, 16 May 1947.	FDB
FDB	41T54	FDB	41T53

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USSR/Hydrology (Contd)	Jan/Feb 1948	<p>reasons for the great changes in the conditions of the Kara Sea. Author studied distribution of manganite and radium to determine the absolute speed of settling and the stability of those changes occurring in the material of the sea bottom during the first stages of lithogenesis.</p>	USSR/Medicine - Leukocytes Jan/Feb 1948 Medicine - Phagocytes and Phagocytosis
FDB	41T54	<p>"The Effects of Mediators on the Phagocytic Action of Leukocytes: I," G. G. Golodets, and N. V. Puchkov, Chair of Animal Physiol, Moscow Inst of Fish Industries and Econ imeni A. I. Mikoyan, 8 pp</p> <p>"Fiziol Zhur SSSR" Vol XXXIV, No 1</p> <p>Authors obtained the following results from their experiments: 1) When the sympathetic nerve in the frog's leg is irritated a substance is perfused from the foot of the frog, which stimulates the phagocytic action of leukocytes. 2) These actions are brought about by the selectivity of the sympathetic system.</p>	FDB 41T55
USSR/Medicine - Leukocytes Medicine - Phagocytes and Phagocytosis	Jan/Feb 1948	<p>"The Effects of Mediators on the Phagocytic Action of Leukocytes: II," G. G. Golodets, N. V. Puchkov, Chair of Animal Physiol, Moscow Inst of Fish Industries and Econ imeni A. I. Mikoyan, 8 pp</p> <p>"Fiziol Zhur SSSR" Vol XXXIV, No 1</p> <p>Authors describe experiments they conducted to determine the effect of acetylcholine and adrenalin on the phagocytosis of substances isolated from the erratic nerve, and also to explain the effect on the phagocytosis of vegetable toxins introduced into the organs of a body which had not been excised. Submitted, 20 Mar 1946.</p>	USSR/Medicine - Leukocytes (Contd) Jan/Feb 1948
FDB	41T56	<p>Authors describe experiments they conducted to determine the effect of acetylcholine and adrenalin on the phagocytosis of substances isolated from the erratic nerve, and also to explain the effect on the phagocytosis of vegetable toxins introduced into the organs of a body which had not been excised. Submitted, 20 Mar 1946.</p>	FDB 41T55
USSR/Medicine - Nervous Systems Medicine - Heredity	Jan/Feb 1948	<p>"Experimental Genetics of the Higher Nervous Activity in Man," I. I. Kanayev, Leningrad, 7 pp</p> <p>"Uspekhn Sovremen Biol" Vol XXV, No 1</p> <p>I. P. Pavlov studied the genetics of higher nervous reactions in connection with his studies of the types of nervous systems, using a genealogical method. This method cannot be used to study the higher nerve reactions in man, however, so author discusses the results of experiments he conducted on the genetics of the higher nerve reactions in man by means of a comparative study of the actions of twins.</p>	USSR/Medicine - Insects Medicine - Parasites Jan/Feb 1948
LC	41T57	<p>"Particulars of the Embryological Development of the Ichneumonidae, in Relation to Parasitism," O. M. Ivanova-Kazas, Leningrad, 19½ pp</p> <p>"Uspekhn Sovremen Biol" Vol XXV, No 1</p> <p>Among the insects of the order hymenoptera there is one that lays its eggs in the eggs, grubs, cocoons and imagines of other insects. This insect is designated as an Ichneumonidae. It is a rather singular insect, as its parasitic life starts during its embryological development. Author describes the embryological development.</p>	LC 41T58
USSR/Medicine - Heredity Medicine - Chromosomes	Jan/Feb 1948	<p>"Chemical Nature of Genes," S. I. Alikhanyan, Moscow, 18 pp</p> <p>"Uspekhn Sovremen Biol" Vol XXV, No 1</p> <p>Discusses some aspects of the chemical nature of genes and their role in biochemistry. States that the chemistry of genes is of direct assistance in understanding genetic and biological evolution, particularly since the chemical approach to the problem opens a new method.</p>	USSR/Medicine - Heredity Medicine - Androgens Jan/Feb 1948
LC	41T59	<p>"The Significance of Merogony and Androgenesis in the Theory of Development and Heredity," B. L. Astaurov, Moscow, 40 pp</p> <p>"Uspekhn Sovremen Biol" Vol XXV, No 1</p> <p>Authors discuss the plasma nucleus; various possibilities for solving the problem of determining the exact size and form of the nucleus particle and cytoplasm; a short summary of experiments conducted on animals; androgenesis in plants; principal defects in the methods for producing experimental androgenesis; methods for correctly carrying out</p>	LC 41T60

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USSR/Medicine - Plants, Parasites Medicine - Microorganisms	Jan/Feb 1948	USSR/Medicine - Heredity (Contd) Jan/Feb 1948	
<p>"Biochemical Resistance of Plants to Microorganisms," B. A. Rubin, Ye. V. Artsikhovskaya, Moscow, 21<math>\frac{1}{2}</math> pp</p> <p>"Uspekhn Sovremen Biol" Vol XXV, No 1</p> <p>Brief collection of data describes the resistance of plants from the standpoint of internal and biochemical dependence on various substances, and is based on an analysis of the relation of the plant host to the parasite. Discusses various factors showing the biochemical resistance of plants to microorganisms.</p>		<p>experiments; and difficulties which will be met when conducting the experiments outlined in this article.</p>	
LC	41T61	LC	41T60
USSR/Medicine - Pyridoxine Medicine - Enzyme Reactions	Jan/Feb 1948	USSR/Medicine - Biology Medicine - Acid, Hyaluronic	Jan/Feb 1948
<p>"Group B<sub>6</sub> Vitamins (Pyridoxine and Its Derivatives) and Their Significance in Enzymatic Reactions," A. V. Trufanov, Moscow, 8 pp</p> <p>"Uspekhn Sovremen Biol" Vol XXV, No 1</p> <p>Vitamin B<sub>6</sub> was found to be an important factor in the nutritional regimen of many animals. Symptoms of vitamin B<sub>6</sub> deficiency in man are: severe nervousness, insomnia, and various abdominal disorders. Fifty grains of vitamin B<sub>6</sub> cure these symptoms in 24 hours. Describes pyridoxine and the substances from which it can be derived. Discusses the significance of vitamin B<sub>6</sub> in enzymatic reactions.</p>		<p>"Hyaluronic Acid and Its Physiological Characteristics," S. M. Bychkov, Moscow, 18 pp</p> <p>"Uspekhn Sovremen Biol" Vol XXV, No 1</p> <p>Hexosamine and uronic acid are very widely produced in living matter. Author discusses only one mucopolysaccharide - hyaluronic acid. This acid, according to Meyer's classification (1938), belongs to a series of acid mucopolysaccharides which contain uronic acid. Hyaluronic acid appears to be the most widely distributed of this class of acids, and author briefly describes its physiological significance.</p>	
LC	41T62	LC	41T63
USSR/Medicine - Evolution Medicine - Cerebellum	Jan/Feb 1948	USSR/Medicine - Skin Diseases Medicine - Penicillin	Jan 1948
<p>"Several Methods of Studying the Evolution of Functions in Ontogenesis," A. M. Aleksanyan, Inst of Evolutionary Physiol and Pathol of the Higher Nervous Activity imeni Academician I. P. Pavlov, Acad Med Sci USSR, 6 pp</p> <p>"Fiziol Zhur SSSR" Vol XXXIV, No 1</p> <p>Author gives some of the data obtained during his studies of the physiology of the cerebellum. Experiments were conducted on animals poisoned with strychnine. Results obtained showed that the phenomenon of decompensation and secondary compensation can be</p>		<p>"Penicillin Ointment for Treating Skin Diseases," Prof A. B. Selisskiy, 3 pp</p> <p>"Fel'dsher i Akusherka" No 1</p> <p>Penicillin ointment is very effective in coping with pyococcus infection of the skin. In some instances (furuncles, carbuncles, etc.) treatment required a combined form, i.e., penicillin ointments on the skin surface and penicillin injections.</p>	
FDB	41T64	FDB	41T65
USSR/Medicine - Evolution (Contd)	Jan/Feb 1948	USSR/Medicine - Narcosis Medicine - Surgery	Jan 1948
<p>studied as a method for determining the evolution of the functions in ontogenesis as well as in filogenesis. Submitted, 2 Aug 1946.</p>		<p>"Temporary Narcosis," S. Ya. Rovinskiy, 6<math>\frac{1}{2}</math> pp</p> <p>"Fel'dsher i Akusherka" No 1</p> <p>Surgical narcosis is one of the greatest benefits to the patient, particularly to a preoperative patient. Author presents some methods of coping with simple complications arising as a result of narcosis. Include the control of self-asphyxiation due to swallowing of the tongue and the application of artificial respiration to supplement the muscular actions of the patient during surgery. Emphasizes that the medical personnel must supply the patient's every need until he regains full consciousness.</p>	
FDB	41T64	FDB	41T66



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<p>USSR/Medicine - Medical Centers Medicine - Social Medicine</p> <p>Jan 1948</p> <p>"Medical Services for the Rural Population in the Fourth Stalin Five-Year Plan," G. F. Konstantinov, Candidate Med Sci, 4 pp</p> <p>"Fel'dsher i Akusherka" No 1</p> <p>Medical Five-Year Plan calls for establishing medical facilities up to prewar level, and improving the services to rural communities. Author discusses some of the methods which will be of direct benefit to rural populations.</p>	41T67	<p>USSR/Medicine - Anaphylaxis and Allergy Medicine - Rats</p> <p>Jan/Feb 1948</p> <p>"Anaphylaxis of Albino Rats," F. A. Levtova, Chair of Pathol Physiol, Second Leningrad Med Inst, 3½ pp</p> <p>"Arkhiv Patol" Vol X, No 1</p> <p>Studies produced the following results: 1) It was not possible to obtain a general serous anaphylactic reaction in white rats. 2) No local reactions were observed by Venetsev's method. 3) Preliminary administration of heterogenous material to produce antigenic serum in rats, did not result in a sensitization of the tissues to subsequent antigen. Submitted, 31 Jan 1947. Deputy of Chair of Pathological Physiology is Prof L. P. Perel'man.</p>
<p>FDB</p> <p>USSR/Medicine - Anaphylaxis and Allergy Medicine - Blood Vessels</p> <p>Jan 1948</p> <p>"The Allergic Dilation of the Vessels in a Dog's Tongue," Prof A. D. Ado, Deputy, Chair of Pathol Physiol, Corr Mem, Acad Med Sci, USSR; D. B. Pen'kovskaya-Shmul'yan, Chair of Pathol Physiol, Kazan Med Inst, 4½ pp</p> <p>"Arkhiv Patol" Vol X, No 1</p> <p>Dilation of vessels due to allergy is a phenomenon which has been little studied. Authors discuss experiments on normal dogs, on sensitized dogs, with absence of parasympathetic innervation of the tongue vessels, for isolation of acetyl-choline, and histamine, and determining the sensitivity of the dog's tongue vessels to acetylcholine. Submitted, 11 Feb 1947.</p>	41T69	<p>FDB</p> <p>USSR/Medicine - Shock Medicine - Blood</p> <p>Jan/Feb 1948</p> <p>"Variations in Potassium, Calcium, and Chlorine Contents in the Blood Serum after Electric Shocks," M. T. Zinov'yeva, Chair of Pathol Physiol, First Leningrad Med Inst imeni Academician Pavlov, 5 pp</p> <p>"Arkhiv Patol" Vol X, No 1</p> <p>Experiments produced the following results due to electric shocks: 1) Increase in potassium content in the blood serum; content was higher in veins than in arteries and higher in rabbits than in dogs. 2) Increase in potassium content depended on the amount of potassium supplied by muscular tissues.</p>
<p>FDB</p> <p>USSR/Medicine - Anaphylaxis and Allergy (Contd)</p> <p>Jan 1948</p> <p>mine, and determining the sensitivity of the dog's tongue vessels to acetylcholine. Submitted, 11 Feb 1947.</p>	41T69	<p>FDB</p> <p>USSR/Medicine - Shock (Contd)</p> <p>Jan/Feb 1948</p> <p>3) Chlorine content in the serum of the arterial blood altered irregularly; in the major part of the experiments, however, chlorine content in the serum of the venal blood increased. Submitted, 14 Jan 1947. Deputy of Chair of Pathological Physiology is Prof I. R. Petrov.</p>
<p>FDB</p> <p>USSR/Medicine - Tularemia Medicine - Vaccines</p> <p>Jan/Feb 1948</p> <p>"Morphological Tissue Degeneration Due to Living Tularemia Vaccine Developed at NIIEG-KA," I. A. Chali-sov, Pathomorphol Lab, Sci Res Inst of Epidemiol and Hygiene for Armed Forces, USSR, 9 pp</p> <p>"Arkhiv Patol" Vol X, No 1</p> <p>Experiments produced the following results: 1) Cutaneous vaccination with dry living tularemia vaccine of NIIEG-Ka penetrated the skin easily and produced exudate caused by a severe skin inflammation, characteristic of tularemia infection. 2) Clinically observed that the lymph glands undergo a change to cope with</p>	41T71	<p>FDB</p> <p>USSR/Medicine - Tissues, Connective Medicine - Pressure</p> <p>Jan/Feb 1948</p> <p>"Changes in the Active Connective Tissues (of Kupfer's Cells) Due to a Reduction of Barometric Pressure," N. V. Balanina, Moscow, Chair of Pathol Anat, Pediatrics Faculty, Second Med Inst imeni Stalin, 2 pp</p> <p>"Arkhiv Patol" Vol X, No 1</p> <p>Several scientists have worked on the subject of adiposity of Kupffer's cells during hypoxemia caused by a lowering of barometric pressure. However, they have done little to clarify the significance of Kupffer's cells in the phenomenon of gas interchange. Author gives results of experiments he conducted to</p>
FDB	41T71	<p>FDB</p> <p>41T72</p>

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<p>USSR/Medicine - Tularemia (Contd) Jan/Feb 1948</p> <p>the allergy to the vaccine. Most noticeable change was in the walls of the blood vessels of the lymph glands. Submitted, 10 Jan 1947. Chief of Pathomorphological Laboratory is Lt Col I. A. Chalisov, Med Corps. Chief of Scientific Research Institute of Epidemiology and Hygiene for Armed Forces of USSR is Col N. Kh. Kopylov, Med Corps.</p> <p>FDB 41T71</p>	<p>USSR/Medicine - Tissues, Connective Jan/Feb 1948 (Contd)</p> <p>study the role played by Kupffer's cells in the phenomenon of gas interchange. Submitted, 1 Nov 1946. Deputy of Chair of Pathological Anatomy is B. N. Mogil'nitskiy, Honorary Scientific Collaborator.</p> <p>FDB 41T72</p>	
<p>USSR/Medicine - Vomiting Jan/Feb 1948 Medicine - Nervous Disease</p> <p>"Persistent and Uninterrupted Vomiting Due to Erratic Nerve," S. S. Vayl', Leningrad, 1 1/4 pp</p> <p>"Arkhiv Patol" Vol X, No 1</p> <p>Gives case histories of two patients suffering from erratic nerve which produced persistent and uninterrupted vomiting. Submitted, 4 Oct 1946.</p> <p>FDB 41T73</p>	<p>USSR/Medicine - Syphilis Jan/Feb 1948 Medicine - Arsenic and Arsenic Compounds</p> <p>"The Tolerance for Arsenic Oxide in Connection with an Accelerated Course of Syphilis Treatment," Prof M. S. Kaplun, Director, Clinic of Skin and Venereal Diseases, Irkutsk Med Inst, 3 1/4 pp</p> <p>"Vest Vener i Dermat" No 1</p> <p>Treatment lasts for five weeks and consists of two injections of mapharsen per week. Treatment had to be discontinued in only four out of 137 cases. In 35 days, 88 of the patients completed the course. Due to the severity of their conditions, 42 cases had to have the treatment prolonged for an average</p> <p>FDB 41T74</p>	
<p>USSR/Medicine - Syphilis Jan/Feb 1948 Medicine - Arsenic and Arsenic Compounds</p> <p>"Problems of Far-reaching Results in Treatment of Highly Contagious Forms of Syphilis with Arsenic Oxide and Novarsenol," V. P. Memorskiy, Clinic of Skin and Venereal Diseases MONIKI, 2 1/2 pp</p> <p>"Vest Vener i Dermat" No 1</p> <p>The following facts were noted as a result of studies conducted by the author: 1) In most venereological institutions Furn'ye's method of treatment is still practiced. 2) Dosages of arsenic oxide given in 1945 and first part of 1946 were usually too small and usually mixed with lead preparations. 3) Data showed</p> <p>FDB 41T75</p>	<p>USSR/Medicine - Syphilis (Contd) Jan/Feb 1948</p> <p>of one week. Treatment of ambulatory cases depends on the degree to which the physician is able to control the actions of the patients during the course of the treatment, as well as the interval between each of the applications of mapharsen.</p> <p>FDB 41T74</p>	
<p>USSR/Medicine - Syphilis (Contd) Jan/Feb 1948</p> <p>that relapses occurred most frequently after the first course of treatment of primary syphilis. 4) High percentage of syphilitic meningitis (8 in 24) was due to faulty proportions of arsenic oxide and lead containing substances in doses. 5) Most relapses are due to improper treatment of patients. Director of Clinic of Skin and Venereal Diseases MONIKI is Prof V. Ya. Arytyunov.</p> <p>FDB 41T75</p>	<p>USSR/Medicine - Syphilis Jan/Feb 1948 Medicine - Chemotherapy</p> <p>"An Experiment with a Concentrated Method of Treating Syphilis," Prof Kh. Dzhaifarov, Director, First Dermatol Clinic; G. Yagubov, First Dermatol Clinic, Azerbaydzhan Med Inst, 1 1/2 pp</p> <p>"Vest Vener i Dermat" No 1</p> <p>Experiments with a highly concentrated treatment of syphilis gave following results: 1) Increase of the daily mapharsen dose to 0.03 does not produce any ill effects in the patients; 2) this increased dose (0.03) does not have any adverse effect on the functions of the kidneys or the liver; and 3) this con-</p> <p>FDB 41T76</p>	

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USSR/Medicine - Gonorrhoea Medicine - Penicillin	Jan/Feb 1948	"Experiments with Peroral Administration of Penicillin during Treatment of Gonorrhoeal Infections," Prof I. M. Poridominskiy, Director, Sec of Male Gonorrhoea, Docent G. L. Zalutskiy, Sec of Male Gonorrhoea, Central Skin Venereological Inst, Ministry of Public Health, USSR, 2½ pp	USSR/Medicine - Syphilis (Contd) Jan/Feb 1948
"Vest Vener i Dermat" No 1		Little has been said about peroral administration of penicillin for treatment of gonorrhoeal infections. Peroral administration is simple and does not cause secondary phenomena such as increased temperature.	centrated method cuts the course of the ordinary treatment by 14 days.
FDB	41T77		FDB
USSR/Medicine - Gonorrhoea (Contd)	Jan/Feb 1948	sores, or local infections. Author describes some details of peroral administration of penicillin. Director of Central Skin Venereological Institute is Docent Z. M. Gol'dzil'ber.	USSR/Medicine - Arsenic and Arsenic Compounds Medicine - Venereal Disease
			"New Techniques in the Treatment of Arsenic Complications," D. I. Lass, 3 pp
			"Vest Vener i Dermat" No 1
			Summary compiled by Lass in regard to new techniques used for treatment of arsenic complicated infections, in particular those infections resulting from salvarsen treatments of venereal diseases. Greater part is given to description of composition, properties, and healing characteristics of BAL (British anti-lewisite). Mostly work by foreign scientists.
FDB	41T77		FDB
USSR/Medicine - Invertebrates Medicine - Oxygen - Deficiency	Jan/Feb 1948	"Passive Anaerobiosis and Microaerophilic Changes in Invertebrates," G. G. Vinbert, Minsk, 16 pp	USSR/Medicine - Leishmaniasis Medicine - Chemotherapy
		"Uspekh Sovremen Biol" Vol XXV, No 1	"Clinical Picture and Course of Leishmaniasis Relapses After Injection with Atebrin," N. V. Dobrotvorskaya, Candidate Med Sci, Chair of Skin and Venereal Diseases, Ashkhabad Med Inst, 4 pp
		Discusses some aspects of anoxybiosis, the explanation of which will lead to understanding of the whole process. Only discusses the biological aspect of the problem, however, thus emphasizing those physioecological properties evidenced by those forms that have adapted themselves to extreme anaerobic conditions.	"Vest Vener i Dermat" No 1
			Studies gave the following results: 1) Relapses were observed in 31.9% of the patients who were treated with 5% solutions of atebrin. 2) Ignored 62.5% of the cases as they showed no evidence of any particular ill effects from treatment. 3) Appearance of and duration of relapses was dependent on the method
LC	41T79		FDB
USSR/Medicine - Skin Diseases Medicine - Penicillin	Jan/Feb 1948	"Treatment of Purulent Skin Infections with Penicillin Ointment," Lt Col A. L. Kashinskiy, Med Corps, Polyclinic, Order of Lenin Acad Armored Tanks and Mechanized Troops imeni I. V. Stalin, 1½ pp	USSR/Medicine - Leishmaniasis (Contd) Jan/Feb 1948
		"Vest Vener i Dermat" No 1	of inoculation, duration of the process, localization, period during which relapses appeared, the age of the patients, and on care given the patients. Prof P. V. Kozhevnikov is Deputy of Chair of Skin and Venereal Diseases.
		Following results were obtained by treatment: 1) Has a good therapeutic effect, and heals much faster than other types of ointments. 2) Found very effective to cover furuncles and pustules with ointment. 3) Ointment found effective in curbing the spread and healing such microbial diseases as impetigo type eczema.	
FDB	41T81		FDB
			41T80

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<p>USSR/Medicine - Lymphogranuloma Venereum Jan/Feb 1948 Medicine - Penicillin</p> <p>"Penicillin Therapy of Quaternary Venereal Disease," Maj P. I. Colemba, Med Corps; Sr Lt Ye. K. Rembоло- vich, Med Corps, N-th Mil Hosp, 2 pp</p> <p>"Vest Vener i Dermat" No 1</p> <p>Studies gave following results: 1) Penicillin is very effective therapeutic for treatment of lymphogranuloma- tosis of the groin. 2) In most cases penicillin alone is sufficient for healing. 3) Penicillin greatly reduces number of days necessary for treatment as bed patients. 4) Dose can be reduced considerably if a sulfide-penicillin compound is used. 5) Intraglandular</p> <p>FDB 41T82</p>	<p>USSR/Medicine - Cardiovascular System, Jan/Feb 1948 Effect of Drugs on Medicine - Respiration</p> <p>"Special Features of the Reaction of the Cardiovascular and Respiratory Systems during Acute Chloral Hydrate Intoxication at Various Growth Stages," V. D. Rozanova, Physiol of Growth Lab, Pediatrics Inst, Acad Med Sci, USSR, 12 pp</p> <p>"Fiziol Zhur SSSR" Vol XXXIV, No 1</p> <p>Author discusses studies conducted in his laboratory to determine the specific effects of physiological intoxication of some organic systems during various growth periods, by means of physiological methods</p> <p>FDB 41T83</p>	
<p>USSR/Medicine - Lymphogranuloma Jan/Feb 1948 Venereum (Contd)</p> <p>injections are a most effective method of therapy. Chief of N-th Military Hospital is Col I. I. Okhlobystin, Med Corps.</p> <p>FDB 41T82</p>	<p>USSR/Medicine - Cardiovascular System, Jan/Feb 1948 Effect of Drugs on (Contd)</p> <p>usually used in such studies, but also by exposing the organs to various types of intoxications. Describes experiments conducted and presents several oscillograph recordings of respiration and blood pressure of intoxicated animals. Submitted, 27 Feb 1946.</p> <p>FDB 41T83</p>	
<p>USSR/Medicine - Physiology Jan/Feb 1948 Medicine - Nervous System, Sympathetic</p> <p>"An Re-evaluation of Several Physiological Factors," V. N. Borsuk, N. A. Verzhbinskaya, Ye. M. Kreps, N. I. Mikhel'son, V. V. Strel'tsov (Deceased), Physiol Inst imeni Academician I. P. Pavlov, Acad Sci, USSR, 2 pp</p> <p>"Fiziol Zhur SSSR" Vol XXXIV, No 1</p> <p>Authors discuss the question of the sympathetic nerve on the chemical processes in the skeletal muscles. Two series of experiments were conducted. In the first, an electrical current was used to irritate the motor nerves of the hind leg of a frog. In the second, an electrical current was applied to the</p> <p>FDB 41T84</p>	<p>USSR/Medicine - Nervous System, Neuro- Jan/Feb 1948 muscular Medicine - Growth</p> <p>"Tetanization of a Single Contraction as an Indication of the Functional Condition of the Neuromuscular System in Ontogenesis," A. A. Oganisyan, Physiol of Growth Lab, Pediatrics Inst, Acad Med Sci, USSR, 8 pp</p> <p>"Fiziol Zhur SSSR" Vol XXXIV, No 1</p> <p>Experiments showed that the neuromuscular system of newborn rats, 14 - 17 days old, had good indications of the phenomenon of tetanization of a single contraction. After this period the phenomenon could</p> <p>FDB 41T85</p>	
<p>USSR/Medicine - Physiology (Contd) Jan/Feb 1948</p> <p>sympathetic nerves which had been deadened with nicotine. Submitted, 12 May 1947.</p> <p>FDB 41T84</p>	<p>USSR/Medicine - Nervous System, Jan/Feb 1948 Neuromuscular (Contd)</p> <p>not be noticed on unaltered nerves. Showed that nerves had low lability during the first 15 days. Increase of lability is necessary for development of the tetanization of a single contraction. Submitted, 25 Jun 1946.</p> <p>FDB 41T85</p>	

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<p>USSR/Medicine - Cyanide Medicine - Carotid Body</p> <p>Jan/Feb 1948</p> <p>"Analysis of the Action of Cyanides on the Respiration of Frogs," M. L. Belen'kiy, Chair of Pharmacology, Second Leningrad Med Inst, 6 pp</p> <p>"Fiziol Zhur SSSR" Vol XXXIV, No 1</p> <p>Discusses the role of the carotid body in frogs. Author conducted experiments based on data previously obtained by Prof S. V. Anichkov. Observed that the carotid body in frogs do not play any part in maintaining respiration after potassium cyanide had been introduced, and the body does not carry out the same functions as the carotid glands in mammals. Submitted, 18 Jun 1946.</p> <p>FDB 41T86</p>	<p>USSR/Medicine - Narcotics Chemistry - Xenon</p> <p>Jan/Feb 1948</p> <p>"The Narcotic Effect of Xenon," N. V. Lazarev, Ye. I. Lyublina, R. Ya. Madorskaya, Toxicol Lab, Leningrad Sci Res Inst for Worker's Health and Industrial Diseases, 4 pp</p> <p>"Fiziol Zhur SSSR" Vol XXXIV, No 1</p> <p>Conducted experiments to determine the effect of Xenon on adult white mice. Experiments were made difficult in that very little gas was available. Also handicapped by lack of equipment. Able to determine that this inert gas has a great narcotic effect even during normal barometric pressure, thus showing that this gas is narcotic independent of pressure. Submitted, 5 Jan 1947. FDB 41T87</p>	
<p>USSR/Medicine - Midwives Medicine - Training</p> <p>Jan 1948</p> <p>"The 75th Anniversary of the Yaroslav Medical Assistant and Midwife School" 1½ pp</p> <p>"Fel'dsher i Akusherka" No 1</p> <p>On 31 Dec 1947 the Yaroslav School celebrated its 75th anniversary. In honor of this occasion, a small historical record was written on the activities of the school for the past 75 years. This historical sketch is published in this article.</p> <p>FDB 41T88</p>	<p>USSR/Medicine - Ascariasis Medicine - Pathology</p> <p>Jan/Feb 1948</p> <p>"A Case of Metastatic Ascariasis," A. A. Grushina, Chair of Pathol Anat, Second Moscow Med Inst imeni Stalin, 1½ pp</p> <p>"Arkhiv Patol" Vol X, No 1</p> <p>This phenomenon is very rare. Only other is mentioned by Boettiger, describing two cases of ascariasis. Grushina describes the clinical symptoms of one case of a 60-year-old woman, who died of a general septic infection, the direct result of ascariasis. Submitted, 5 Nov 1946. Director of Chair of Pathological Anatomy is Prof I. V. Davydovskiy, Active Member, Academy of Medical Sciences of USSR. FDB 41T89</p>	
<p>USSR/Medicine - Blood - Oxygen</p> <p>Jan/Feb 1948</p> <p>"A. M. Charnyy's Book, 'Pathophysiology of Anoxia'," L. N. Karlik, ½ p</p> <p>"Uspekh Sovremen Biol" Vol XXV, No 1</p> <p>Reviews Charnyy's book published in 1947 by the Central Institute for the Improvement of Physicians. Contains 286 pages, three parts and 16 chapters. Discusses anoxia, one of the most interesting of actual problems of contemporary pathology, and is very vital in understanding the disruption of the gas exchange between the blood and the tissues of the body. It has many typographical errors, which are no fault of the author but, in general, it must be said that this book represents a new step in Soviet pathophysiology.</p> <p>IC 41T90</p>	<p>USSR/Medicine - Stimulation and Stimuli Medicine - Nerves, Optic</p> <p>Jan/Feb 1948</p> <p>"Temporary Threshold Differentiation during Electrical Irritation of the Optical Analyzer," G. I. Mil'shteyn, Chair of Physiol, Mil Med Acad imeni S. M. Kirov, 8 pp</p> <p>"Fiziol Zhur SSSR" Vol XXXIV, No 1</p> <p>Many scientists have studied the phenomenon of sense perception, especially where the skin was subjected to two irritations applied close to one another at brief intervals. In 1946 Bronshteyn observed that if irritations were applied on surfaces, bearing</p> <p>FDB 41T91</p>	
<p>USSR/Metals Ore Dressing Coal</p> <p>Feb 1948</p> <p>"Technological Systems for Reconstructed and New Coal Dressing Plants," P. I. Preobrazhenskiy, Engr, Giproskoks, 10 pp</p> <p>"Stal'" No 2</p> <p>Principle fundamentals and technological systems of reconstructed and newly erected coal dressing installations are characteristic of the high degree of engineering of the dressing process during the new Five-Year Plan. These remodeling operations will tend to increase the quality of coke and lower its cost price and coefficient of coal expenditure.</p> <p>FDB 41T92</p>	<p>USSR/Medicine - Stimulation and Stimuli (Contd)</p> <p>Jan/Feb 1948</p> <p>some functional relation to one another, then a reaction will be obtained similar to one which would be obtained if there were no spacing between the two points of irritation. Author applies this phenomenon to the optical analyzer, to see whether it also holds true. Submitted, 10 Jun 1946.</p> <p>FDB 41T91</p>	

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<p>USSR/Metals Ore Dressing Alloys</p> <p>Jan 1948</p> <p>"Agglomeration of Naturally Alloyed Ore," F. I. Titov, Engr, Magnitogorsk Combine, 4 pp</p> <p>"Stal'" No 1</p> <p>As a result of the process of industrial agglomeration of naturally alloyed ores an agglomerate of very desirable quality was obtained. Studies of production of agglomeration equipment showed certain deficiencies. Corrections were made, greatly altering the equipment of agglomeration plants. Results of experiments have shown that it is practical to build plants for the agglomeration of naturally alloyed ores.</p> <p>FDB 41T93</p>	<p>USSR/Metals Steel - Production Efficiency, Industrial</p> <p>Jan 1948</p> <p>"The Third Year of the Five-Year Plan" 3 pp</p> <p>"Stal'" No 1</p> <p>Production of ferrous metallurgical plants rose to 1% above the norm. Steel exceeded 1946 by 9%, mining of iron ore was 20.4% over the norm. In all, 1947 was a very favorable year, with all industries patriotically trying to fulfill and overfulfill their norms. All figures are given in approximate percentages.</p> <p>FDB 41T94</p>	
<p>USSR/Metals Steel, High Temperature Steel, Chromium</p> <p>Jan 1948</p> <p>"Fire Resistant Chrome-copper Silicate and Chrome-aluminum Silicate Steels," M. P. Braun, Candidate Tech Sci, UralMashZavod, 4 pp</p> <p>"Stal'" No 1</p> <p>The heat and fire resistance of highly and moderately chrome steel was raised considerably as a result of supplementary alloying with silicon and aluminum (to which either copper or molybdenum had been added). Results were so favorable that it is quite possible that these alloys will replace chrome-nickel steel for</p> <p>FDB 41T95</p>	<p>USSR/Metals Steel Alloys Steel - Tensile Strength</p> <p>Jan 1948</p> <p>"The Effect of Alloying Elements on the Resistance to Friability of Highly Tensile Steels," Ya. M. Potak, Candidate Tech Sci, Ye. L. Bushmanova, Engr, VIAM, 4 1/2 pp</p> <p>"Stal'" No 1</p> <p>Author states that the friability of parts from highly tensile steels, due to loading, is usually due to the friability of alloying materials added to the molten steel to increase the tensile strength. Discusses results of his experiments, showing that</p> <p>FDB 41T96</p>	
<p>USSR/Metals (Contd)</p> <p>Jan 1948</p> <p>the manufacture of parts which must be operated under very high temperature conditions.</p> <p>FDB 41T95</p>	<p>USSR/Metals (Contd)</p> <p>Jan 1948</p> <p>additions of nickel, chrome, copper, and tungsten had the greatest effect, while small additions of vanadium, titanium, and molybdenum had somewhat lesser effect.</p> <p>FDB 41T96</p>	
<p>USSR/Metals Steel Stamping, Metal</p> <p>Feb 1948</p> <p>"Steel for Stamping Tools," G. L. Livshits, Candidate Tech Sci, TsNIICHM, 4 pp</p> <p>"Stal'" No 2</p> <p>Studies on a series of new stamping steels with low tungsten (molybdenum) content and their use in operational circumstances revealed a good possibility that these steels could be used in the manufacture of stamping tools, and for molds for die casting. If this possibility is realized the new steels will replace steels type 3XB8, and 3V 160.</p> <p>FDB 41T97</p>	<p>USSR/Metals Metallurgy, Ferrous Industrial Equipment - Production</p> <p>Feb 1948</p> <p>"Development of the Production of Metal Parts of Industrial Significance" 5 pp</p> <p>"Stal'" No 2</p> <p>Basic metal parts are produced from thin sheets of ferrous metal which cannot be produced by hot rolling. Describes briefly some advances made in the production of such basic parts as reinforcements, etc., since the beginning of the Soviet regime. Production of metal parts grew 2 1/2 times from 1917 to 1947.</p> <p>FDB 41T98</p>	

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<p><del>RESTRICTED</del></p> <p>USSR/Nuclear Physics - Isotopes Jan 1948 Nuclear Physics - Bromine - Isotopes</p> <p>"Nuclear Quadruple Moment of Bromine," T. Schmidt, <math>\frac{1}{2}</math> p</p> <p>"Zhur Eksper i Teoret Fiz" Vol XVIII, No 1</p> <p>Discusses recent research by Townes, Holden, Bardeen and Merritt on the spectrum of absorption of molecules BrCN and ClCN having a wave length of about 1 cm, which showed that both nuclei of a Bromine isotope have a positive quadruple moment.</p> <p>FDB 41T99</p>	<p>USSR/Physics Jan 1948 Superconductivity Bismuth Compounds</p> <p>"Superconductivity of Bismuth Compounds," N. Alekseyevskiy, <math>\frac{1}{2}</math> p</p> <p>"Zhur Eksper i Teoret Fiz" Vol XVIII, No 1</p> <p>Describes experiments on the superconductivity of bismuth compounds Bi<sub>1</sub>Rh, Bi<sub>2</sub>Rh, Bi<sub>3</sub>Ca, Bi<sub>2</sub>Pt, Bi<sub>2</sub>Cr. Experiments are continuation of previous research described by author in "Journal of Physics, USSR" No 9, 1945.</p> <p>FDB 41T100</p>
<p>USSR/Physics Jan 1948 Superconductivity Magnetic Fields - Analysis</p> <p>"Research on the Depth of Penetration of a Magnetic Field into a Solid Superconductor," A. I. Shal'nikov, Yu. V. Sharvin, <math>1\frac{1}{2}</math> pp</p> <p>"Zhur Eksper i Teoret Fiz" Vol XVIII, No 1</p> <p>Describes experiment carried out to determine the variable EMF in a coil inside which is placed a superconducting tin model in the form of an ellipsoid 4 cm long with a diameter of 1 cm. Tabulates experimental results. Thanks P. L. Kapitza, L. D. Landau and N. V. Zavaritskiy for assistance.</p> <p>FDB 41T101</p>	<p>USSR/Physics Jan 1948 Viscosity Wave Mechanics</p> <p>"Wave Flow of Thin Layers of a Viscous Liquid: I. Free Flow," P. L. Kapitza, 15 pp</p> <p>"Zhur Eksper i Teoret Fiz" Vol XVIII, No 1</p> <p>Describes the theoretical study of wave flow of thin layers of a viscous liquid under the influence of a constant force, taking surface tension into account. An approximate equation of flow is given.</p> <p>FDB 41T102</p>
<p>USSR/Physics Jan/Feb 1948 Sunspots Solar Phenomena</p> <p>"The 22-year Cycle of Solar Activity," M. N. Gnevyshev, A. I. Ol', Pulkova Observatory, Acad Sci, USSR, 3 pp</p> <p>"Astr. Zhur" Vol XXV, No 1</p> <p>Discusses the change in polarity of sunspots, and the law of formation of the 22-year cycle from the 11-year cycle.</p> <p>FDB 41T103</p>	<p>USSR/Physics Jan 1948 Spectrum Analysis Spectra, Electronic</p> <p>"Electron Spectra and Intensity of Combination Dispersion in Spectra," M. V. Vol'kenshteyu, 12 pp</p> <p>"Zhur Eksper i Teoret Fiz" Vol XVIII, No 1</p> <p>Analyzes formulas based on the association of the intensities and polarizations of lines of combination dispersion with aspects of the basic and excited electron conditions of a molecule.</p> <p>FDB 41T104</p>
<p>USSR/Physics Jan 1948 Crystallography Phosphorescence</p> <p>"Adduced Law for the Extinguishment of Phosphorescence in Crystals," E. I. Adirovich, Phys Inst imeni P. N. Lebedev, Acad Sci, USSR, 16 pp</p> <p>"Zhur Eksper i Teoret Fiz" Vol XVIII, No 1</p> <p>Shows that the elementary law of extinguishment only depends on one parameter, the parameter of phosphorescence. Other parameters only affect the size of the characteristic units of time, intensity and quantity of light.</p> <p>FDB 41T105</p>	<p>USSR/Physics Jan 1948 Viscosity Wave Mechanics</p> <p>"Wave Flow of Thin Layers of a Viscous Liquid: II, Heat Transfer, and Flows in Contact with a Stream of Gas," P. L. Kapitza, 10 pp</p> <p>"Zhur Eksper i Teoret Fiz" Vol XVIII, No 1</p> <p>Describes the reciprocal action of a stream of gas and a wave flow, and explains and determines the pressure drop in a stream of gas flowing in pipes with damp inner surfaces.</p> <p>FDB 41T106</p>

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USSR/Radio Jan 1948  
Radio Interference - Elimination  
Radio Broadcasting

"The Struggle against Interference on Low Frequency Channels for Radio Broadcasting," P. A. Palladin, Engr, 1½ pp

"Vest Svyazi, Elektro-Svyaz'" No 1 (94)

Has been discovered that during broadcast of many programs in low frequency channels there is frequent interference, such as the superimposition of one program onto another, or some outside interference. Studies into the cause of this interference have shown that much of this difficulty can be overcome by proper

FDB 41T107

List of Abbreviations  
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ID Intelligence Division Library  
AMC Air Documents Division, Air Materiel Command  
ST Reference Division, State Department  
BM Bureau of Mines, Dept of Interior  
BS National Bureau of Standards  
SI Smithsonian Institution  
LC Library of Congress  
FDB Foreign Documents Branch, CIA  
COM Department of Commerce  
AF A-2 Library, USAF

USSR/Radio (Contd) Jan 1948

grounding of the broadcasting apparatus, as well as the apparatus at booster stations. For that reason it is wise to have two forms of grounding: 1) operating, and 2) auxiliary. Author presents some means of installing these two methods of grounding at broadcasting stations.

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AMC Air Documents Division, Air Materiel Command  
ST Reference Division, State Department  
BM Bureau of Mines, Dept of Interior  
BS National Bureau of Standards  
SI Smithsonian Institution  
LC Library of Congress  
FDB Foreign Documents Branch, CIA  
COM Department of Commerce  
AF A-2 Library, USAF