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V. I. KOVALENKOV: ON HIS SEVENTIETH BIRTHDAY

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The twenty-fifth of March 1954 marks the seventieth birthday of one of the greatest Soviet scientists in the field of electric communication, the venerable teacher, doctor of technical sciences, professor, honored scientist and engineer, Major General of the engineering-technical service, associate member of the Academy of Sciences USSR, Valentin Ivanovich Kovalenkov.

V. I. Kovalenkov was born in the village of Mezhnik (Novogorod Province) in the family of a rural teacher.

Completing the course at the electrotechnical institute in Peterburg in 1909, he received a medal for successful defense of his diploma thesis. His name was listed on the marble plaque of the institute. Planning to do serious scientific work, Valentin Ivanovich entered the Physicomathematical department of St. Peterburg University, where he completed his course in 1911. In 1914 he defended a dissertation in applying for the scientific degree of associate professor. For this dissertation work he was awarded the A. S. Popov prize and was awarded an honorable mention by the Academy of Sciences.

Since his student days up to the present time, V. I. Kovalenkov has been carrying on extensive scientific and scientific-organisational activities. His inventive activity, experimental and theoretical work in the field of long-distance telephonic and telegraphic communication have blazed new paths of development in the science and engineering of communication. At the same time they have determined the basic trends of the development of these branches of electric communication in the Soviet Union. His work exerted also a substantial effect on the development of radio engineering, automatics, telemechanics, and sound film.

In his first basic work Ustanavlivayushchiyesya protsessy i rasprostraneniye preryvistogo toka po telegrafnym provodam /Steady State Processes and Propagation of Intermittent Current over Telegraph Wires/ published in 2 volumes in 1911-1913, the scientist investigated in detail the propagation of intermittent current along telegraph wires and showed the need for decreasing the diameter of telegraph wires from 6 to 5 mm, which was of great economic significance.

In 1915 V. I. Kovalenkov demonstrated an operating vacuum-tube telephone repeater circuit, the development of which he started in 1909. The practical realization of the results of these investigations and inventions, which are of tremendous importance, became possible only after the Great October Socialist Revolution.

Valentin Ivanovich was the first to produce in the USSR in 1921 a model installation for multiplex high-frequency telephony for 3 conversations, which made it possible to proceed towards a practical development of this equipment.

The scientist paid particular attention to the problems of the development of theory of electric communication and of magnetic circuits. The results of his theoretical and experimental investigations in this field are reported in many books and articles published since 1911. In

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these books and articles, many of the problems were first solved by him.

The scientific works of V. I. Kovalenkov, published during Soviet times, are well known to a large circle of specialists. His books Telefonirovaniye na bol'shiye rasstoyaniya /Long Distance Telephony/ (1924) and Teoriya telegrafno-telefonnoy peredachy /Theory of Telegraph-Telephone Transmission/ (1926) played an important role in the development of the theory and practice of electric communication and in the preparation of highly-qualified Soviet specialists in this field.

For the development of the theory of magnetic circuits and its application to the analysis of relay schemes, and also for a 2-volume book called Teoriya peredachi po liniyam elektrosvyazi /Theory of Transmission over Electric-Communication Lines/ V. I. Kovalenkov was awarded the Stalin prize in 1941.

Valentin Ivanovich was known for his scientific work not only in the field of electric communication. He is the inventor of sound film: he was the first to produce a demonstration of sound motion-picture film. The principal schemes for recording and reproducing sound, which were developed by him, are employed to the present time in a system of sound-motion-picture apparatus. He also carried out many interesting investigations in the field of acoustics.

In 1939 V. I. Kovalenkov was elected an associate member of the Academy of Sciences USSR. Within the year he was appointed deputy director of the Institute of Automatics and Telemechanics of the Academy of Sciences USSR for the scientific section, and in 1942 he became the director of that institute. Since 1948 he has been in charge of the Laboratory for the Solution of Scientific Problems of Wire Communication of the Academy of Sciences USSR.

During his 45 years of activity in the field of electric communication the scientist published 35 monographs and more than 150 articles. In addition, he wrote many articles of a popular-scientific character. He was awarded 76 patents and inventor's certificates for inventions in the field of wire and radio communications, vacuum tubes, sound motion pictures, etc.

During his many years of activity as a professor and teacher Valentin Ivanovich trained a large number of engineers and scientific workers in the field of telephonic and telegraphic communication. Many of his students are great scientists and statesmen in the Soviet Union.

For outstanding service to the fatherland, V. I. Kovalenkov was awarded 2 Orders of Lenin, the Order of Labor Red Banner, the Order of the Red Star, and several medals.

With his tireless labor and tactful relationship to people, Valentin Ivanovich has won deserved respect and affection by large circles of communication workers.

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NEW LITERATURE ON PROBLEMS OF COMMUNICATIONS

Vestnik Svyazi /Communications Herald/, No 4, 1954, Moscow, outside back cover — Unsigned Article

Dogadin, V. N., and Chernyavskaya, A. K., Posobiye dlya kolkhosnogo radista /Textbook for the Kolkhoz Radio Operator/, 1954, Moscow, Svyazizdat, 232 pages, 3 inserts, 6.60 rubles.

Contains brief information on electrical and radio engineering; discussion of radio-receiving installations, radio wired-broadcasting centers, and electric supply for receiving-amplifying installations and for radio wired-broadcasting networks.

Levitin, Ye. A., Radioveshchatel'nyye lampovyye priyemniki /Radio Broadcasting Vacuum-Tube Receivers/ (Repair and Adjustment), 1953, Moscow, Koiz, 432 pages, 21 inserts, 18.90 rubles.

The book consists of 3 parts. The first part summarizes fundamental radio-engineering information needed for understanding the operating principles of radio-broadcasting receivers. The second part explains the procedure for finding and eliminating faults in radio receivers and acquaints the reader with control and measurement apparatus used for repair. The third part contains a description of radio-broadcasting receivers issued by Russian industry since 1946 and gives handbook data on these receivers.

Linde, D. P., Antenno-fidernyye ustroystva /Antenna and Feeder Installations/, Radio library for the masses under general editorship of academician A. I. Berg, No 194, 1953, Moscow-Leningrad, Gosenergoizdat, 191 pages, 1 insert, 4.40 rubles.

A popular discussion of the principles of antenna engineering and a description of modern antenna and feeder installations used in radio-amateur practice. The book is intended for radio amateurs and for practical radio specialists.

Ministry of Communication USSR, State Union Design Institute, Yedinyye normy vyrabotki na proyektnyye i izyskatel'skiye raboty, oplachivayemyye sdel'no /Unified Norms of Production in Design and Investigation Work, for which Piece Rates Are Paid/ Part 20, Svyaz' i signalizatsiya /Communication and Signalization/, approved by Ministry of Communications USSR 1 September 1953, coordinated with the VTsSPS and the state committee of the Council of Ministers USSR on construction matters, 1954, Svyaz'izdat, 167 pages, 5 rubles.

Contains norms for time and prices for the design of electric-communication and signalisation structures.

Ministry of Communication USSR, technical administration, Rukovodyashchiye ukazaniya po proyektirovaniyu, stroitel'stvu i ekspluatatsii zazemleniy v ustanovkakh provodnoy svyazi i radiotranslyatsionnykh uzlov /Governing Instructions on the Design, Construction, and Operation of Ground Connections in Wire-Communication Installations and Wired-Broadcasting Centers/. 1953. Moscow. 59 pages. 1.75 rubles*.

Examines the types of grounding devices, gives design equations for the determination of the resistance of the grounding devices, gives

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indications on the installation of ground connections in wire-communication apparatus and radio wire-broadcasting centers, on the measurement of ground resistance, and on the control of the condition of grounding devices.

Khrestomatiya radiolyubitelya /Radio Amateur's Reader/, compiled by I. I. Spizhevskiy, radio library for the masses under general editorship of academician A. I. Berg, No 192, 1953, Moscow-Leningrad, Gosenergoizdat, 215 pages, 12 rubles.

The reader contains selections from magazine articles, books, and brochures on electrical and radio engineering, which contain information needed for beginning radio amateurs. It contains descriptions of many popular radio-amateur receivers, and a selection of articles on procedures used in construction, adjustment, and tests of receivers, on the preparation of home-made power packs, and also a description of visual-education devices.

Ministry of Communication USSR, technical administration, lectures on Postal Communication, N. D. Stas', Organizatsiya i tekhnika ekspedirovaniya periodicheskoy pechati /Organization and Techniques in Dispatching Periodical Literature/, 1954, Moscow, Svyaz'izdat, 39 pages, 1.20 rubles*.

The lectures describe in detail the sequence and system of organizing and techniques of dispatching periodical press (newspaper and magazines) in special dispatching enterprises and at the postal-communication enterprises.

Stolyarov, N. D., Remont mezhdugorodnykh vozdushnykh liniy svyazi ukrupnennoy kolonnoy /Repair of Interurban Overhead Communication Lines by Means of A Reinforced Column/ (from the operating experience of the Michurin Line-Technical Communications Unit). 1954, Moscow, Svyaz'izdat, 32 pages, 0.50 rubles*.

Relates the operating experience of the staff of the Michurin line-technical unit on the performance of repair of overhead communication line using a reinforced repair column. The author of the brochures shows by means of practical examples the advantages of repairing with a reinforced column, indicates the individual shortcomings, and introduces many suggestions on how to eliminate them.

Tomchin, B. Z., Metody raboty uchastkovykh nadsmotrshchikov Leningradskoy gorodskoy telefonnoy seti /Operating Methods of the Section Supervisors of the Leningrad Municipal Telephone Network/, 1953, Moscow, Svyaz'izdat, 23 pages, 0.35 rubles.

Description of methods and operating measures of the better section supervisors of the Leningrad Municipal Telephone Network, and also certain suggestions made by the workers of this network to improve the operation of the subscriber sets.

Chistyakov, N. I., Radiopriyem i rabota radiopriyemnika /Radio Reception and Operation of Radio Receivers/, text for those who study about radio receivers from the manufacturer's instructions, second edition, 1953, Moscow, Voyenizdat, 223 pages, 1 insert, 6 rubles.

Contains a discussion in popular form of the fundamental information on electric processes occuring in the elements of modern long-, medium-, and short-wave receivers. The book is intended for readers who have no special radio-engineering preparation, but who are acquainted with an

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elementary course in electrical engineering and with the fundamentals of radio engineering. Study of this book will help the reader cope with the operation of radio-reception apparatus with the aid of factory instructions and descriptions that came with the equipment.

All-Union Society for Dissemination of Political and Scientific Knowledge, Leningrad Division, P. V. Shmakov, Tsvetnoye televideniye /Color Television/, stenographic transcript of a public lecture, 1953, Leningrad, 38 pages, 0.60 rubles.

The lecture discusses, after a brief explanation of the physical foundations of color television, the principal television systems employed: the system of simultaneous transmission of colors, sequential system of transmission of color fields, sequential system with change of colors by lines, system with change of colors by elements.

Book published by Svyaz'izdat are sold in Soyuspechat' stalls, bookstores, and are shipped COD by the Central Retail Office of the Soyuspechat'. Individual orders for these books should be addressed to: Moscow, Strastnoy Boulevard, 10, Central Retail Office of Soyuspechat', "books by mail." Books marked * are dispatched locally to branch administration of the Communications Ministry (are not for sale).

Orders for books published by other publishing houses must be addressed to: Moscow, Staropimenovskiy Pereulok, 1/26 Mosknigotorg, "books by mail."

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