

RADIO ENGINEERING PRINCIPLES

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SECOND EDITION

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PREFACE TO SECOND EDITION

This second edition of "Radio Engineering Principles" is a revision and amplification of the first edition, which was written after the conclusion in 1919 of the authors' radio work as Second Lieutenant and Captain, respectively, in the Signal Corps, U. S. A.

The new edition follows the same general plan and purpose as the first, but the development of the art since the World War, particularly with respect to the science and practice surrounding the three-electrode vacuum tube, has made considerable additions desirable.

The book is intended to serve as a general textbook on radio. It is devoted in large part to a study of the characteristics and use of the three-electrode vacuum tube in radio telegraphy and radio telephony, since it is around this device that the present and future of the science seem mainly to center. But the principles involved in the older forms of radio apparatus are also treated with sufficient fulness to round out the student's information and to cover all the essential principles of wireless communication.

In the detail development of the principles involved, the electron theory is made use of frequently, as it often gives a clearer conception of what takes place under certain conditions. Mechanical analogies are avoided. Mathematics is resorted to only to indicate the applications in the problems of design, or the relations, in concise form, existing among the various quantities of a radio circuit. The description of any specific apparatus is purposely avoided, with the object in mind of devoting the entire space of the book to the principles involved, though the general means of utilizing these principles in practical work are of course given. With the principles understood, it is a simple matter to apply them to any specific radio apparatus.

THE AUTHORS.

December, 1927.

POSTSCRIPT

As this Edition is about to go to press word has come to me of the sudden death of my co-author and friend Harry L. Brown. His loss is keenly felt by his associates in many varied fields of the electrical industry to which his activities were devoted. The preparation of the present edition of our book had been the object of careful attention on his part, and no later than a few days ago did he put the final touches to the new Preface of the book.

In remembrance of his kind cooperation and as a tribute to his memory, I most respectfully dedicate this second edition to his widow, Mrs. Harry L. Brown, with the expression of my sincere grief and deep sympathy.

HENRI LAUER.

November 11, 1927.

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