

THE RADIO AMATEUR'S
HANDBOOK
* EIGHTEENTH EDITION * NINETEEN-FORTY-ONE *

BY THE HEADQUARTERS STAFF OF THE
AMERICAN RADIO RELAY LEAGUE



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FOREWORD

IN PRESENTING for 1941 the eighteenth edition of *The Radio Amateur's Handbook* the publishers again express the hope that it will be found as helpful as previous editions and will enjoy as whole-hearted a reception at the hands of the amateur fraternity.

From modest beginnings in 1926 the *Handbook* has had an inspiring success, running now to eighteen editions in thirty printings and a total distribution well over six hundred thousand copies. Its fame has echoed around the world. Schools and technical classes have adopted it as a text; quantity orders have come from many a foreign land. But most important of all, it is the right-hand guide of practical amateurs in every country of the globe. This success derives in considerable measure from the splendid coöperation we have always received from practicing amateurs everywhere, for which we remain grateful.

Devoted to a fast-moving and progressive science, it is only natural that throughout its life the *Handbook* should have required sweeping and virtually continuous modification. Since the very beginning a strenuous attempt has been made to keep the book as up to date, as accurate and as reliable as is humanly possible. A studious effort has been made to restrict the material to modern, sound and well-tried practice. Having always had somewhat the character of an annual review of time-tried and proven methods in apparatus construction and operation, the *Handbook* has never provided a place for freaky circuits or methods. As any practicing amateur is well aware, there is an almost infinite number of ways of accomplishing a given result in his station — some good, some poor, many indifferent. Our editorial task has therefore been basically one of selecting. It has been necessary to eliminate from the enormous wealth of ideas on technique, methods and procedure, all those that have not proved themselves by successful application in practice.

For many editions back, the annual revision of the *Handbook* has been a sort of family affair of the headquarters staff of the American Radio Relay League at West Hartford. Most of the technically-skilled specialists on the League's staff, men who have earned their spurs in amateur radio, have participated in its revision. The present edition has seen a general rewriting and the addition of nearly two hundred new illustrations, while dozens of new pieces of apparatus were specially designed and constructed — and tested! Prepared under the general technical editorship of Mr. George Grammer, *QST's* technical editor, and with major contributions by him, the present work also represents many months of labor on the part of Messrs. Donald H. Mix and Byron Goodman, *QST's* assistant technical editors; Mr. Clinton B. DeSoto, assistant secretary of the League; and Mr. Vernon Chambers, in charge of *QST's* technical information service. The station-operating material of course is contributed by the League's communications manager, Mr. Francis E. Handy. The actual production of the book has been on the broad shoulders of Mr. Clark C. Rodimon, *QST's* managing editor.

In this edition we retain last year's plan of rearranging the material for the greatest benefit of the various classes of *Handbook* users, and a few words of explanation may be in order. First, from a reference to the contents page it will be seen that the book is divided into sections: introductory, principles, the construction and use of equipment, antennas, and so on. Within these sections there continues to be a more extensive subdivision into chapters than

in the past, for the purpose of segregating the material in which various groups of users will be more particularly interested. For example, the elements of a lecture or study course in radio will be found by taking Chapters 3 to 6, 11, 17, 21 to 24, and 26. Design information particularly valuable to amateurs who plan their own equipment is given in Chapters 4 to 6, and 20. Adjustment and "trouble-shooting" have been segregated for transmitters, receivers and 'phone, respectively, in Chapters 9, 14 and 16, to make these important treatments more readily available not only for those who are building new equipment but for those who already have satisfactory apparatus. At the end of each chapter on the construction of equipment there is a bibliography of articles in *QST* in which will be found more extensive descriptions of some of the pieces of apparatus described in this edition. References to these bibliographies will be found frequently in the text and take such a form as (*Bib. 5*), which means that the fifth item in the bibliography at the end of that particular chapter will give a reference to a *QST* article describing the particular piece of gear in somewhat greater detail. It should perhaps be pointed out that, to facilitate reference, the illustrations herein are serially numbered in each chapter and with the first digit indicating the chapter number. Thus, Fig. 812 can be readily located as the twelfth illustration in Chapter 8. Finally it should be mentioned (because many amateurs do not seem aware of it!) that this *Handbook* has, at the end of its reading pages, a comprehensive and carefully-prepared index, which will lead the reader quickly to the treatment of a subject of particular interest.

One feature of the *Handbook* which has been growing steadily in importance is the quite extensive catalog advertising. We recognize that it is generally not regarded as good form to make editorial reference even to the existence of advertising, but this case we believe to be different. To be truly comprehensive as a handbook — to fill all the functions one visualizes with the word "handbook" — this book must bring the reader data and specifications on the manufactured products which are the raw material of amateur radio. Our manufacturers have collaborated with us in this purpose by presenting here not mere advertising but catalog technical data. The amateur constructor and experimenter will find it convenient to possess in such juxtaposition both the constructional guidance he seeks and the needed data on available equipment, since both are necessary ingredients of the complete standard manual of amateur high-frequency communication.

It is but natural that we here shall all feel very happy if this edition of the *Handbook* brings as much assistance and inspiration to amateurs and would-be amateurs as have its predecessors.

KENNETH B. WARNER
Managing Secretary, A.R.R.L.

WEST HARTFORD, CONN.
November, 1940

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HIRAM PERCY MAXIM MEMORIAL STATION, W1AW
THE AMATEUR — HIS CODE OF ETHICS

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