

**A B C OF
TELEVISION; OR
SEEING BY RADIO**

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A B C of television; or Seeing by radio by Raymond Francis Yates

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Dr. Herbert Ives of the Bell Telephone Laboratories beside the great neon lamp with its 2500 electrodes. The received picture appears upon this glass screen in the form of 2500 spots of light of varying intensity. Dr. Ives is holding one of the large photoelectric cells used at the transmitter. (Photo Courtesy Bell Telephone Laboratories, Inc.)

DISCARD
REEDSBURG, WIS.

ABC OF TELEVISION

OR

SEEING BY RADIO

A COMPLETE AND COMPREHENSIVE TREATISE DEALING WITH THE THEORY, CONSTRUCTION AND OPERATION OF TELEPHOTOGRAPHIC AND TELEVISION TRANSMITTERS AND RECEIVERS

WRITTEN ESPECIALLY FOR HOME EXPERIMENTERS
RADIO FANS AND STUDENTS

Includes a brief history of television, a glimpse into its future, as well as its immediate possibilities. Explains in easily-understood language the theory of photo-electric cells, scanning discs, neon tubes, Kerr cells, selenium cells, and the underlying factors involved in the successful transmission of still and living scenes. Outlines the various television and telephotographic systems in use today and tells how to build and use simple home-made equipment

BY

RAYMOND FRANCIS YATES

Formerly Editor of *Popular Radio*, Member Institute of Radio Engineers and the American Physical Society



FULLY ILLUSTRATED WITH LINE DRAWINGS AND PHOTOGRAPHS

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PREFACE

Television, the new magic of communication, has whetted the interest of thousands of amateur experimenters, who, having mastered the less spectacular art of sound communication by radio, now feel the urge to push forward into new fields of scientific adventure. Television, quite contrary to what might be anticipated, requires only modest equipment and even those with a more or less superficial knowledge of electrical phenomena may set to work building their own television and phototelegraphic machines with every assurance of enjoying something more satisfying than mediocre success.

In the preparation of this little volume, the author sought to gather and present only data that would answer the questions and solve the problems of those practical-minded experimentalists who desire to assemble their own television and telephotographic machines for what pleasure they may derive by so doing. What is needed more than anything else at the present time is a handbook of useful information: applied television.

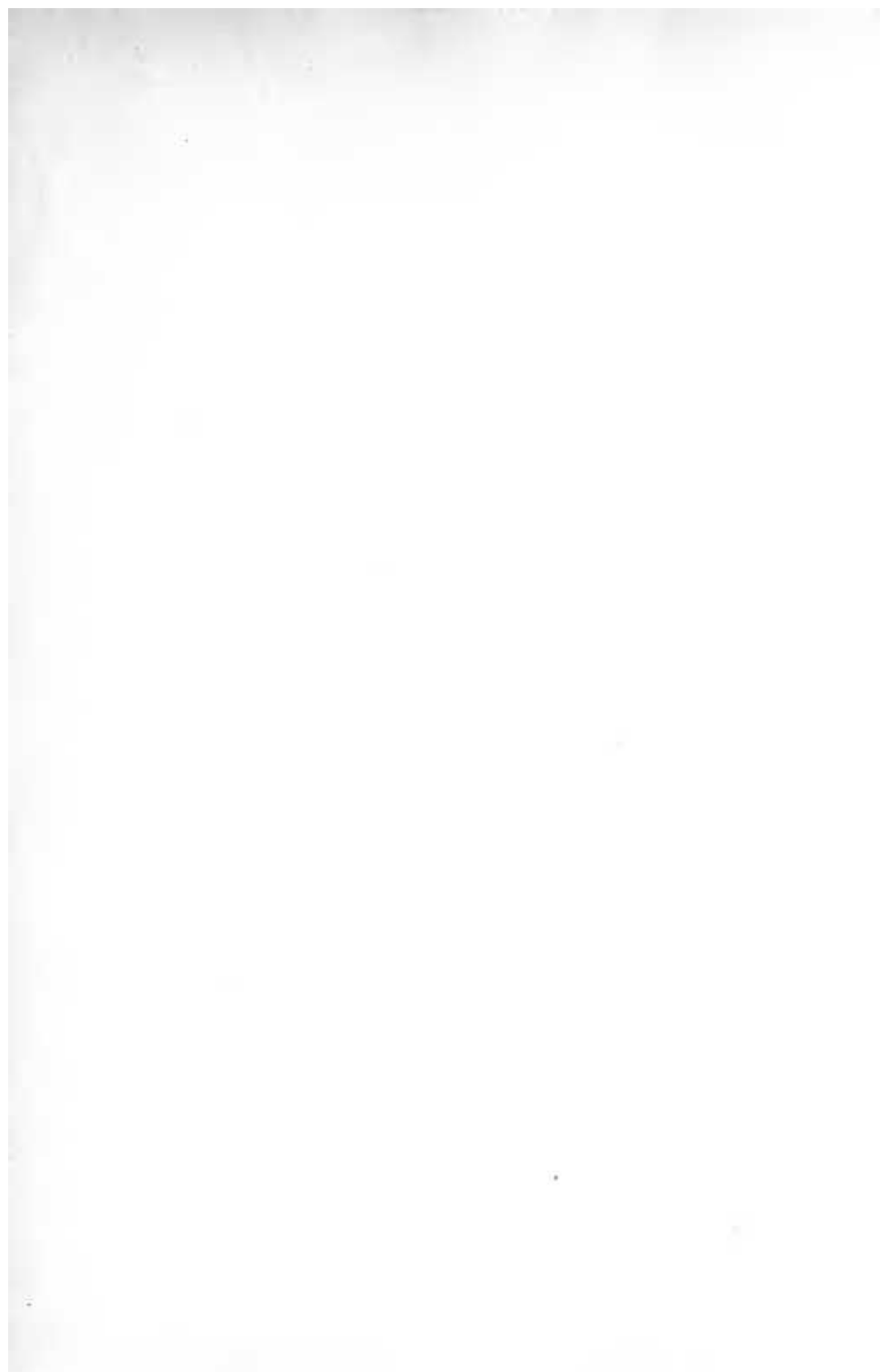
The author wishes particularly to mention the courtesy of the Bell Telephone Laboratories, Inc., for the use of many pictures and diagrams to say nothing of a liberal portion of text taken from the publications of this organization. The practical achievements in the art of television of the Bell Telephone Laboratories are the fruit of scholarly analysis of the many delicate problems involved in transmission and reception. Owing to the limited circulation of the technical journals issued by the Bell organization, it was thought advisable to make some of this extremely valuable data available to a larger number of experimentalists. 7969

RAYMOND FRANCIS YATES.

June, 1929.

7949

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